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August 15, 2012

Ministry of Justice
Province of British Columbia
PO Box 9289 Stn Prov Govt
Victoria, British Columbia
V8W 9J7

ATTN: Chris Jones, Senior Legal Counsel

Dear Mr. Jones,

We write on behalf of our client, Rivers Without Borders, regarding the Tulsequah Chief Mine project proposed by Chieftain Metals (“Chieftain”). As you may be aware, Chieftain has halted operation of a water treatment plant at the site. This move by the mining company raises several issues and concerns, including:

- potential violations of the *Fisheries Act*, cleanup orders and inspectors directives, Chieftain’s discharge permit and possibly its Environmental Assessment approval certificate;
- resumption of historic acid mine drainage (“AMD”) and associated heavy metals discharge into the Tulsequah River, the main tributary to the transboundary Taku River, with likely detrimental effects on fish and water quality;
- no announced plans for resumption of water treatment plant operation;
- detrimental impacts on BC’s relationship with First Nations, Alaskan Indian Tribes and Alaskan and US governments; and
- the feasibility of the current plan to achieve mine site remediation through development of a new mining operation, given what appear to be serious financial challenges faced by Chieftain.

Below we elaborate on some of the background information. We ask that the BC government through the proper agencies take steps to ensure immediate resumption of water treatment plant operations and explore further ways to achieve permanent clean-up that does not depend on active mining operations, which have been proposed for over 20 years but have never materialized.

BACKGROUND

This abandoned mine is situated on the east bank of the Tulsequah River, approximately 14 kilometres above its confluence with the Taku River, in northwestern British Columbia. Mine development work started in the 1930's and production was started in 1951. The mine was operated by Cominco Ltd until mining ended in 1957. Although Cominco developed several cleanup plan documents in response to BC pollution abatement orders, no actual work was ever done. The pollution problem at Tulsequah Chief is caused by contaminated mine waters which flow into the Tulsequah River. Sulphide ore and waste rock exposed near and within underground openings contain heavy metals such as arsenic, cadmium, lead, copper and zinc. Oxidation of iron sulphide forms weak acids which dissolve the heavy metals. Water draining from the mine at its lowest levels and into the Tulsequah River contains elevated concentrations of these heavy metals and is acutely lethal to fish.

In 1992, Redfern Resources proposed to re-open the Tulsequah Chief mine (see Chronology at Enclosure 1). In 1993, BC issued a pollution abatement order to Redfern. Almost 10 years later, Environment Canada issued an Inspectors Directive in 2002 for Redfern to halt the toxic drainage into the Tulsequah River. Redfern took some efforts to halt the AMD but inspectors concluded that none of their mitigative measures worked. In 2009, Redfern declared bankruptcy.

In September 2010, Chieftain Metals purchased the mine site. In December 2011, the company installed and began operating an Interim Water Treatment Plant ("IWTP"). Both Redfern and Chieftain intended the IWTP to be an interim solution for water treatment; mine development and eventual reclamation were planned as the permanent solution to the AMD problem.

The AMD issue has been of great concern to US and Alaska agencies and elected officials, Native tribes and First Nations, and commercial fishermen as is demonstrated by the enclosed correspondence from:

- US State Department and Interior Department (Enclosures 2, 3 and 4);
- State of Alaska and the City/Borough of Juneau (Enclosures 5, 6, 7, 8 and 9);
- commercial fishermen (Enclosures 10 and 11);
- Douglas Indian Association (Enclosure 12); and
- Taku River Tlingit First Nation (Enclosure 13).

CURRENT SITUATION

On June 6, 2012, Chieftain notified Environment Canada that the company was closing the IWTP due to higher than planned costs and technical problems. As of June 22, Chieftain Metals halted the operation of the IWTP. Chieftain Metals has no announced timeframe for re-starting the plant or obtaining more funding.

Chieftain has still not released a mine feasibility study which it had previously announced would be completed by April 2012, and the project faces a number of risks and uncertainties related to the deposit, access and overall mine viability (see attached Risk Analysis at Enclosure 14). We believe this setback, and the information set out in the enclosed Risk Analysis, raise significant concerns about the project's viability and the feasibility of achieving permanent remediation through re-activation of mine operations.

Chieftain's June 6 letter to Environment Canada (Enclosure 15) references increasing costs, "significant" safety concerns, unanticipated technical challenges, and the need for Chieftain to undertake a "comprehensive review" of the project's design, economics and construction processes. Although not noted by Chieftain, we believe that the closure is also the result of Chieftain's tenuous financial situation and its inability to attract investors. Chieftain Metals only had \$192,000 of working capital remaining as of June 30, 2012 according to its recent financial disclosure.

As far as we know there has been no official response to the closure from BC or Canadian regulatory agencies. In press releases and statements to media, Chieftain spokespersons have provided no details as to when the IWTP would be re-started. The company has also provided no details about the likelihood and timeline for raising funds for the mine project. Thus, concern is growing that the AMD will continue unabated for the foreseeable future, especially since a permanent solution that does not require an active mine is apparently not under discussion.

ALTERNATIVE CLEANUP STRATEGIES

As new owner of the mine, Chieftain is now the prime party responsible for the environmental remediation. However, as you are aware, it is likely possible to hold previous owners such as Teck (which acquired Cominco in 2001) responsible. In fact, if Chieftain is unable to meet the payment requirements under the \$5,000,000 loan agreement with Teck Resources for construction of the IWTP, ownership of the IWTP will revert to Teck. Given the ample time that has been given to allow Redfern and later Chieftain to reactivate the mine, efforts which have not been successful and now look increasingly in doubt, we submit that it is essential to explore alternatives to achieve site remediation.

Both Chieftain and Redfern stated that they could undertake some interim efforts to control and treat the AMD, but a permanent solution would require the resources of a developed mine to backfill the mine to prevent water movement. This is more an argument based on company finances than engineering and technical issues. Regulatory agencies seem to have accepted that cleanup requires an active mining operation.

However, at least one governmental manager noted the problem with this approach back in 1989:

“We have never taken the position that the best way of dealing with the situation is by re-establishing a viable mining operation. We have no information that would indicate that there will be a viable mining operation there, and certainly no commitment from Cominco that they will ever go into production. Further, any proposal to re-open the mine has to go through the Mine Development Review Process. Therefore, we are faced with the knowledge that the drainage from the adit is toxic, with no indication how long it could be before the situation can be addressed properly through a formal mine review.” *Letter from T. Roberts, Regional Waste Manager, Skeena Region, Ministry of Environment to Cominco Ltd., Attn: W.J. Wolfe, Manager Exploration, Western Canada. “Re: Pollution Abatement Order, Acid Drainage, Tulsequah Chief Mine site.” October 26, 1989.*

Managers have also questioned the assertion that a solution based on an operating mine is best:

“It is not apparent that the operating mine would be more effective in improving water quality than alternative remediation approaches.” *Review of Tulsequah Chief Project Cumulative Water Quality Effects Assessment, By Research Coordination and Applications Section, Environmental Contaminants Bureau. July 27, 2001.*

We see two basic permanent solutions here. From an engineering perspective, neither option requires an operating mine.

In perpetuity operation of the IWTP: According to a May 21, 2009 affidavit from Terry Chandler, former Redfern CEO and former VP of Chieftain, “Once installed, the IWTP will provide a viable solution to the major source of existing environmental contamination problems at the mine site.”

Backfilling of the mine to prevent water movement: A 1992 SRK report and remediation plan proposed consolidating acid generating waste rock near the 5400 level, covering the waste rock with a geomembrane cover, and bulkheading the 5200, 5400, and 5900 level portals thus sealing the old workings and preventing further discharge from the underground workings. The government agencies accepted this “walk away” option but deferred its implementation to allow the company to try to further explore and develop the mine.

We would be happy to work with your office in an effort to discuss and develop methods to solve the pollution problems at the mine site. We look forward to your reply.

Sincerely,



T. Leadem, Q.C.

cc: Environment Canada
Department of Fisheries and Oceans
BC Ministry of Energy and Mines
Taku River Tlingit First Nation c/o Tony Pearse
US EPA, State Department and Interior Department

BC Ministry of the Environment
Alaska Department of Fish and Game
Alaska Department of Natural Resources
Douglas Indian Association

Appendix A: List of Enclosures

1. Chronology of Acid Mine Drainage Cleanup Orders, Inspections and Company Responses for Tulsequah Chief and Big Bull Mines
2. Letter from David A. Balton, Deputy Assistant Secretary for Oceans and Fisheries, US Department of State, to Canadian Ambassador Gary Albert Doer, dated June 3, 2010
3. Letter from David A. Balton, Deputy Assistant Secretary for Oceans and Fisheries, US Department of State, to the Honourable Barry Penner, Minister of Environment, dated June 3, 2010
4. Letter from Pamela Bergmann, Regional Environmental Officer – Alaska, US Department of the Interior, to Mr. Garry Alexander, Director of Strategic Policy and Planning, BC Environment Assessment Office, dated April 25, 2010
5. Letter from Thomas E. Irwin, Commissioner, Department of Natural Resources, State of Alaska, to Melanie MacKenzie, Redcorp/Redfern Interim Receiver, dated July 1, 2009
6. Letter from Sarah Palin, Governor, State of Alaska, to the Honourable Gordon Campbell, Premier of British Columbia, dated July 1, 2009
7. Letter from Tom Crafford, Mining Coordinator, Department of Natural Resources, State of Alaska, to Garry Alexander, BC Environmental Assessment Office, dated April 26, 2010
8. Letter from Senator Kim Elton and Representative Beth Kerttula, Alaska State Legislature, to the Honourable Geoff Regan, Minister of Fisheries and Oceans Canada, dated May 26, 2005
9. Letter from Bruce Botelho, Mayor of the City/Borough of Juneau, Alaska, to the Honourable Peter Kent, Minister of the Environment, dated August 13, 2012
10. Letter from Mark Vinsel, Executive Director, United Fishermen of Alaska, to the Honourable Sean Parnell, Governor, State of Alaska, dated March 8, 2010
11. Letter from Dale Kelley, Executive Director, Alaska Trollers Association, to Senator Dennis Egan and Representatives Beth Kerttula and Cathy Munoz, Alaska State Legislature, dated August 6, 2012

12. Letter from Douglas E. Dobyms, Environmental Planner, on behalf of the Douglas Indian Association, to Garry Alexander, BC Environmental Assessment Office, dated April 26, 2010
13. Website posting from the Taku River Tlingit First Nation, “Recent Activities,” dated August 1, 2012
14. Risk Analysis of the Chieftain Metals Tulsequah Chief Mine Proposal, dated February 20, 2012
15. Letter from Keith Boyle, Chief Operating Officer, Chieftain Metals Inc., to Wade Comin, Inspector, Environmental Enforcement Division, Environment Canada, dated June 6, 2012

CHRONOLOGY OF ACID MINE DRAINAGE CLEANUP ORDERS, INSPECTIONS AND COMPANY RESPONSES FOR TULSEQUAH CHIEF AND BIG BULL MINES

- 1957: Cominco closes the Tulsequah Chief mine without cleanup of Acid Mine Drainage (AMD) or reclamation of the site.
- October 26, 1989: British Columbia (BC) issues pollution abatement order to Cominco for AMD at the Tulsequah Chief mine site. It requires a site survey and a cleanup plan. It was appealed and subsequently upheld.
- 1990-1992: Site investigations and a remediation plan done.
- 1990: BC first tests the Tulsequah Chief site in 1990, and finds “considerable acid generation,” adding that the water samples taken were “acutely toxic” to fish.
- May 1, 1990: Environmental Assessment filed by Cominco.
- November 1, 1990: Cominco files a report on Preliminary Environmental Evaluation of the Tulsequah Chief site.
- August 1, 1991: Cominco files report for Preliminary Plans for Control of AMD and Alternative Abandonment Plans for Tulsequah Chief by Redfern.
- October 1, 1991: Redfern files report on Site Reconnaissance and Preliminary Acid Generation Control and Site Rehabilitation Plan.
- 1992: Redfern Resources proposes to re-open the Tulsequah Chief mine.
- July 1, 1992: Cominco files report on Mine Site Assessment and Options for Rehabilitation for AMD Abatement
- January 28, 1993: BC issues a pollution abatement order to Redfern for the Tulsequah Chief. Periodic monitoring reports are required.
- Undated and unsigned memo on Site Remediation-Progress to Date says Redfern has deposited \$1.15 million into an escrow account for mine rehabilitation and that the SRK consultants rehabilitation plan satisfies the terms of the original abatement order. Also says that a reduction of 70-80% of the pollution would probably be sufficient.
- April 21, 1994: Monitoring report received by BC.
- 1998-2003: BC officials retest the Tulsequah Chief site five times. BC takes no meaningful action to enforce clean-up
- 1998: Environment Canada (EC) issues warning letters to Redfern about the AMD problem at both its Tulsequah Chief and Big Bull mine sites.
- 1999: Redfern attempts a fix at the Tulsequah Chief with limestone dams and a disposal field.
- July 12, 2002: EC issues Inspector’s Directions under the Fisheries Act for Big Bull and Tulsequah Chief sites, ordering Redfern to stop toxic mine drainage from entering the Tulsequah River by September 30, 2003. The company then plugged some holes and diverted water flows.
- Fall 2003: EC inspects Tulsequah Chief and finds the attempted fixes aren’t adequate. At Big Bull EC finds significantly less surface water, but toxicity of discharge had not changed.
- October 2003: Canadian federal investigators visit Redfern’s Tulsequah Chief and Big Bull mine sites and finds that “none of the measures undertaken by Redfern had significantly reduced the acutely lethal toxicity of the ARD [Acid Rock Drainage] discharges from the two mine sites.”
- October 22, 2003: Redfern requests extension of the federal Inspector’s Directions until June 30, 2005.

- November 27, 2003: Final remediation report from Redfern received by EC.
- May 12, 2004: Both Inspector's Directions (for Big Bull and Tulsequah Chief) extended until June 30, 2005 with requirement for monthly monitoring reports from Redfern.
- May 28, 2004: Bruce Rawson, representing Redfern, wrote to EC with a list of concerns for a June 1 meeting and primary was Redfern's claims that EC's enforcement actions do not recognize the constraints of the site or Redfern's limited financial Resources.
- July 2004: EC conducts on site inspection.
- July 2005: Redfern installs treatment plant at Tulsequah Chief site. President Terry Chandler says in order to build a better treatment system, the company needs a road into the site and money to run a treatment plant, things that can only be done if the mine is reopened.
- September 2005: EC inspects Tulsequah Chief site and treatment plant.
- 2006: EC and the Department of Fisheries and Oceans deny all requests for information on AMD and cleanup from Rivers Without Borders.
- 2007: BC officials provide no useful information in response to repeated phone, email and letter requests for information on the status of cleanup and AMD pollution.
- May 2, 2007: Redfern officials deny written and verbal requests for information on the status of cleanup efforts and AMD pollution from Rivers Without Borders.
- March 4, 2009: Redfern files for bankruptcy protection.
- May 14, 2009: Inspector Wade Comin inspects Tulsequah Chief site.
- May 22, 2009: Inspector Comin issues an Inspector's Direction requiring that pollution be halted by July 15 and that a report be issued by Redfern by August 1, 2009.
- May 29, 2009: Bankruptcy court denies Redfern's request to extend protection and appoints receiver.
- June 16, 2009: John Heinonen of DFO inspects Tulsequah Chief and issues a trip report.
- July 1, 2009: Alaska Governor Palin and DNR Commissioner Irwin send letters to Redfern's receiver and BC Premier Campbell urging mine site cleanup.
- July 2009: Redfern removes most of the equipment and a water treatment plant from the site for sale in order to satisfy creditors.
- December 2011: Chieftain Metals installs an Interim Water Treatment Plant at the Tulsequah Chief mine.
- June 2012: Chieftain announces the treatment plant has not worked as expected and that the plant will be closed due to a lack of funding.

Sources include:

- Environment Minister David Anderson and Fisheries and Oceans Minister Geoff Regan written responses to a petition by citizens of Atlin, BC, 2/12/04.
- Environment Canada: Response To Environmental Petition No. 958 Under Section 22 of The *Auditor General Act* Petitioners: Ms. Nicole Lischewski And Ms. Nan Love, 11/30/05.
- Overview of Mines Act Application: Pre-Construction Site Cleanup, Redcorp Ventures, September 27, 2007.
- Redcorp bankruptcy documents on KPMG website (www.kpmg.ca/en/ms/cl/redcorp/), including Affidavit 4 of Terry Chandler of Redcorp 5/21/09 and Affidavit #1 from Wade Comin of Environment Canada 5/25/09.



United States Department of State
*Bureau of Oceans and International
Environmental and Scientific Affairs*
Washington, D.C. 20520

June 3, 2010

Ambassador Gary Albert Doer
Embassy of Canada
501 Pennsylvania Avenue NW
Washington, D.C. 20001

Dear Ambassador Doer:

I am writing to convey the United States' interest in an environmental issue affecting our shared Taku River watershed, and to request your assistance in obtaining a response to certain questions raised by U.S. and Alaskan officials in previous correspondence. The Taku River is an important part of our nations' shared ecosystem, and supports a thriving salmon fishery for both U.S. and Canadian communities. The United States believes that we have a mutual obligation to protect the shared resources of the Taku River watershed, as reflected in the relevant provisions of the Boundary Waters Treaty of 1909 and the Pacific Salmon Treaty.

Over the past several years, the fate and impact of historic and proposed mining operations at the Tulsequah Chief Mine (Mine) and the proposed transportation system for the Mine have been uncertain. That uncertainty increased when the companies seeking to reopen the Mine were placed in receivership in May 2009.

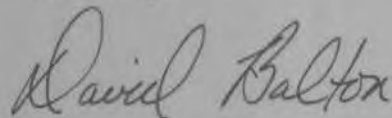
I understand that British Columbia authorities are evaluating whether to approve a request to transfer previously granted mining and transportation-related certificates and permits to a new company, while the potential downstream impacts of those activities remain unresolved and the site's acid mine drainage continues largely unabated.

We are concerned that the downstream effects of the historic Mine operations have not been adequately evaluated and could be causing impacts to water quality, sediments, and/or fisheries in the shared watershed. We are also concerned about unresolved and previously identified transportation issues that have the potential for significant impacts on U.S. resources in the region. The enclosed letters from the Alaska Department of Natural Resources, former

Alaska Governor Palin, and the U.S. Department of the Interior raise important questions about all of these issues. I understand that the U.S. Environmental Protection Agency will also be writing a letter to Canadian authorities raising some or all of these issues. I would appreciate your assistance in having these questions addressed.

I appreciate the cooperative manner in which our nations address transboundary environmental concerns. I hope that cooperation between our governments will result in a mutually satisfactory outcome on the Tulsequah Chief Mine that will protect our shared watershed and its rich fisheries resources.

Sincerely,



David A. Balton
Deputy Assistant Secretary
for Oceans and Fisheries

Enclosures:

Governor Palin letter, July 1, 2009

Alaska Department of Natural Resources letter, April 26, 2010

U.S. Department of the Interior letter, April 25, 2010

cc:

Minister Barry Penner, British Columbia Ministry of the Environment



United States Department of State

*Bureau of Oceans and International
Environmental and Scientific Affairs*

Washington, D.C. 20520

June 3, 2010

The Honorable Barry Penner
Minister of Environment
P.O. Box 9047 Stn Prov Govt
Victoria, British Columbia
V8W 9E2

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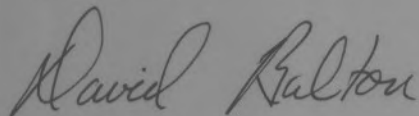
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Sincerely,

A handwritten signature in cursive script that reads "David A. Balton".

David A. Balton
Deputy Assistant Secretary
for Oceans and Fisheries

Enclosures:

Governor Palin letter, July 1, 2009

Alaska Department of Natural Resources letter, April 26, 2010

U.S. Department of the Interior letter, April 25, 2010

cc: Ambassador Gary Doer, Embassy of Canada



United States Department of the Interior



OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1689 C Street, Suite 119
Anchorage, AK 99501-5126

9043.1
PEP/ANC

April 25, 2010
Via Electronic Mail

Mr. Garry Alexander
Director, Strategic Policy and Planning
Environmental Assessment Office
P.O. Box 9426 Stn Prov Govt
Victoria, BC V8W 9V1

This letter is in response to your April 6, 2010, memorandum regarding the request by Mr. Robert B. Swift of Davis LLP to you requesting the transfer the Tulsequah Chief Mine Project's Environmental Assessment Certificate M02-01, including all amendments and attachments, to a new project proponent, 2224004 Ontario Inc. As you know, the U.S. Department of the Interior (USDOI) has been involved in reviewing and commenting on the proposed Tulsequah Chief Mine Project for many years. Most recently, our work has focused on reviewing documents associated with the development of the mine and the proposed Air Cushion Barge (ACB) Transportation System. Our interests are pursuant to international agreements including, but not limited to, the International Boundary Waters Treaty Act and the Migratory Bird Treaty Act.

The USDOI wants to ensure that any actions taken by your office and/or the British Columbia (BC) Minister of the Environment with respect to the requested transfer, as it relates to either the development of the mine and/or its associated transportation system (including an ACB Transportation System), do not result in adverse water quality impacts to the Big Bull Slough and downstream waters that are part of the Taku River water system or to the fish and/or fish habitat associated with that water system, and/or other biological resources that are dependent on the Taku River water system and fishery resources. In addition, the USDOI wants to ensure that actions taken by your office and/or the BC Minister of the Environment satisfactorily address the on-going discharge of acidic, metal-laden waters to the Tulsequah River, which has continued since the closure of Cominco's mining operations at the site in the 1950's and has been the subject of clean-up orders by Canadian agencies, most recently in an Inspector's Direction on May 22, 2009, from Environmental Canada under the Fisheries Act.

We appreciate the opportunity to provide comments on the proposed transfer. Please feel free to give me a call at 907-271-5011, if you have any questions.

Sincerely,

Regional Environmental Officer – Alaska

cc: Mr. Jason Quigley, Canadian Environmental Assessment Agency
Mr. James Wilkinson, Fisheries and Oceans Canada
Ms. Jennifer Simpson, Fisheries and Oceans Canada
Mr. Tracy Sandgathe, Fisheries and Oceans Canada
Mr. Loren Kelly, British Columbia Ministry of Energy, Mines and Petroleum Resources
Mr. Ian Sharpe, BC Ministry of Environment
Mr. David Hermann, U.S. Department of State
Ms. Patty McGrath, U.S. Environmental Protection Agency
Ms. Cindy Hartmann, U.S. Department of Commerce, National Marine Fisheries Service
Mr. Jeffrey DeFreest, U.S. Department of Agriculture, U.S. Forest Service
Captain Melissa Bert, U.S. Coast Guard
Mr. Douglas Dobyns, Douglas Indian Association
Mr. Tom Crafford, Alaska Department of Natural Resources

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF THE COMMISSIONER

SARAH PALIN, GOVERNOR

550 WEST 7TH AVENUE, SUITE 1400
ANCHORAGE, ALASKA 99501-3650
PHONE: (907) 269-8431
FAX: (907) 269-8918

July 1, 2009

Ms. Melanie MacKenzie, Redcorp/Redfern Interim Receiver
McIntosh and Morawetz, Inc.
c/o Alvarez & Marsal
Royal Bank Plaza, South Tower
200 Bay Street, Suite 2000
P.O. Box 22
Toronto, Ontario M5J 2J1
CANADA

RE: Tulsequah Chief Mine and Redcorp /Redfern Receivership

Dear Ms. MacKenzie:

For many years, the State of Alaska (State) has been actively engaged with Redcorp Ventures Ltd and its subsidiary, Redfern Resources Ltd. (collectively, Redcorp), and both Federal and Provincial Canadian agencies regarding Redcorp's efforts to reopen the Tulsequah Chief Mine (Tulsequah). State agencies reviewed and commented on Redcorp's development plans that had previously called for the construction of a ~100 mile-long access road. More recently, State agencies had been working with those parties in the review and permitting of Redcorp's proposal to employ an air cushion barge to access the Tulsequah site via the Taku River.

Alaska's involvement with the Tulsequah project stems from its concern to protect the valuable downstream fisheries resources and water quality in the Taku River, which according to a 2004 McDowell Group study annually contributes about \$7.5 million to the area economy. The State has enjoyed a close and cooperative relationship with Federal and Provincial Canadian agencies, which have welcomed State representatives' participation in the Technical Working Groups reviewing project proposals. The State's authority to review and comment on project proposals derives from the 1909 Boundary Waters Treaty, as well as other international treaties (Migratory Bird Species Act, North Pacific Salmon Treaty).

Of special concern to the State, as well as Alaska fisheries interests and the Native community, is the on-going discharge of acidic, metal-laden waters (Acid Mine Drainage or AMD) to the Tulsequah River that has continued since the closure of Cominco's mining operations at the site in the 1950's. Recent testing confirms the toxicity of this discharge to Rainbow Trout, the test species. The discharge has been the subject of clean-up orders by Canadian agencies, most recently an Inspector's Direction on May 22, 2009 from Environment Canada under the Fisheries Act, but has continued largely, if not wholly, unabated. Redcorp's re-development plans for Tulsequah would have addressed the AMD discharges, but this solution no longer appears to be tenable due to that company's financial difficulties.

"Develop, Conserve, and Enhance Natural Resources for Present and Future Alaskans"

Based on Redcorp documents and discussions with British Columbia agencies, the State understands that Redcorp purchased an Interim Water Treatment Plant (IWTP) and mobilized it, unassembled, to the Tulsequah site in late 2008. Redcorp had petitioned the Court-appointed Monitor for funding to install, commission, and operate the IWTP, but the May 29 Appointment Order by Justice Brenner effectively left Redcorp without resources to accomplish these tasks. As a consequence, the AMD discharges continue with no mechanism in place for bringing them to an end.

The State understands that the financial and legal issues regarding Redcorp and the Tulsequah project are complex and in a state of flux. As these issues are resolved it is imperative that the need to address the long-standing AMD drainage not be overlooked. The State is especially concerned that options for addressing the Tulsequah AMD not be eliminated through the disposition of potentially crucial assets. Therefore, the State hereby requests and strongly recommends that the Receiver, McIntosh and Morawetz Inc., protect and preserve the on-site IWTP until the applicable authorities have determined the appropriate means for addressing and ceasing the Tulsequah AMD discharge. The State similarly recommends that no expenditures or disposition of assets occur that might serve to reduce or limit access to the Tulsequah site from either the airstrip or the exploration road connecting the site to the barge landing site at Big Bull Slough.

The State of Alaska appreciates your attention to this letter, and any steps that you as the Court-appointed receiver can take to ameliorate the AMD discharge at the Tulsequah Chief Mine site. If we can be of any assistance, please don't hesitate to contact me.

Respectfully,



Thomas E. Irwin
Commissioner

SARAH PALIN
GOVERNOR
GOVERNOR@GOV.STATE.AK.US



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STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

July 1, 2009

The Honorable Gordon Campbell
Premier of British Columbia
P.O. Box 9041
Station Provincial Government
Victoria, BC V8W 9E1
CANADA

Dear Premier Campbell:

I wish to draw your attention to a situation at the inactive Tulsequah Chief Mine in northwestern British Columbia, near Juneau, Alaska. For decades the mine has been a source of pollution draining into the Taku River watershed, which hosts valuable fisheries on both sides of our border.

Redcorp Ventures, Ltd. and Redfern Resources, Ltd., the companies seeking to reopen the Tulsequah Chief Mine, were placed in receivership by the B.C. Supreme Court on May 29, 2009. This action effectively brought to an end the near-term prospects for reopening the mine and thereby eliminated the site's acid mine drainage (AMD), which has been ongoing since mine production ceased in the 1950s. In order to protect downstream water quality and assure the continued health of the valuable Taku River fisheries, the state of Alaska feels other means must be promptly implemented for remediating the Tulsequah Chief AMD drainage.

Enclosed is a letter from Department of Natural Resources Commissioner Tom Irwin providing more extensive information. Alaska stands ready to work with you and your staff to address the problem. I am confident that the close working relationships that have been established will provide a firm foundation for collaboration between our governments on how to remediate the Tulsequah Chief AMD discharge in as timely a manner as possible.

Sincerely,

A handwritten signature in black ink that reads "Sarah Palin".

Sarah Palin
Governor

Enclosure

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF PROJECT MANAGEMENT AND PERMITTING

SEAN PARNELL, GOVERNOR

SOUTHCENTRAL REGIONAL OFFICE
550 W 7th AVENUE SUITE 900D
ANCHORAGE, ALASKA 99501
PH: (907) 269-8629 FAX: (907) 269-8930
tom.crafford@alaska.gov

April 26, 2010

Garry Alexander
British Columbia Environmental Assessment Office
Victoria, B.C.
CANADA

VIA EMAIL

RE: Transfer of Tulsequah Chief EA Certificate MO2-01

Dear Garry,

Thank you very much for the opportunity for the State of Alaska to provide comment regarding the potential transfer of Redfern Resources Ltd's. (Redfern) Environmental Assessment Certificate, MO2-01 (Certificate), for the Tulsequah Chief Project (Tulsequah). Since your April 6, 2010 Memorandum and email, it has come to the State of Alaska's (State) attention that the potential transferee is Chieftain Minerals (Chieftain). Following are the State's consolidated comments and requests.

- Any transfer of the property and its associated authorizations should be tied to a plan and an enforceable commitment, including a timetable, for addressing the existing acidic mine drainage (AMD) and metal leaching from the mine workings and waste materials currently at the site.
- Chieftain should have adequate financial standing to reliably assume the responsibilities and commitments it would accept in connection with the proposed transfer(s).
- What is the status of the Interim Water Treatment Plan (IWTP) purchased by Redfern for treatment of the existing AMD, but never installed? Tom Irwin, Commissioner, Alaska Department of Natural Resources, inquired about the IWTP in his July 1, 2009 letter (attached) to the Receiver, McIntosh and Morawetz (now, Alvarez & Marsal) and urged that it be retained for possible treatment of the existing AMD. However, no response to that letter was received. Additionally, the Alaska Department of Law has made multiple unsuccessful efforts to contact the Receiver, and never received a response to its inquiries.
- What are the financial assurance amounts that are currently in place for Tulsequah? Where and how are those amounts held, and to what purposes can those financial assurances be applied? In particular, the State understands that a financial assurance, linked to the AMD, was put in place when the Tulsequah property was transferred from Cominco to Redfern. What are the status and particulars of those funds?
- There is an outstanding Redfern debt to the State in the amount of \$77,858.38 (see attached Proof of Claim Form) for State expenses associated with the now terminated permitting process for the previously proposed operation of air cushion barges in the Taku River Valley in Alaska. What is Chieftain's proposal for addressing this outstanding debt?

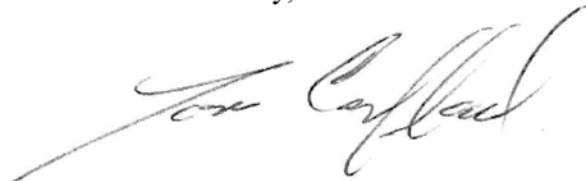
"Develop, Conserve, and Enhance Natural Resources for Present and Future Alaskans."

The State would also like to articulate two concerns regarding the transportation solution for the Tulsequah Project. First, during Redfern's Tulsequah permitting effort, the permitting process for the air cushion barging in Alaska was out of synch with the mine permitting and construction activities. This resulted in construction occurring in advance of a permitted transportation solution for the project, which likely contributed to the financial difficulties that culminated in Redfern being placed in receivership. The State feels that authorizations for further construction, beyond that required to address the AMD issue at the site, should be linked to the Project's need for a permitted transportation solution.

Second, it's worth noting that the unfrozen nature of substantial portions of the Taku River in Alaska during much of the past winter represented significantly different conditions than Redfern has considered in its air cushion barging proposal. Such conditions would need to be evaluated in the planning and permitting review for authorizations required to operate in Alaska, if Chieftain were to revisit air cushion barging as a potential transportation solution.

Thank you, again, for the opportunity to provide comment regarding the potential transfer of the Certificate for the Tulsequah Project. The State sincerely appreciates the manner in which the B.C and Canadian federal agencies have welcomed the State into the review of Canadian projects with potential transboundary implications. We look forward to working with you in the future.

Sincerely,



Tom Crafford
Mining Coordinator

Cc: Tom Irwin, Commissioner, DNR
Cora Campbell, Governor's Office
David Bedford, ADFG
Ed Fogels, DNR-OPMP
Dick Mylius, DNR-DMLW
Patty McGrath, EPA
Cindy Hartmann, NOAA
Doug Dobyns, DIA
Ian Sharpe, B.C. MOE

Denby Lloyd, Commissioner, ADF&G
Dick Lefebvre, DNR
Patrick Valkenburg, ADFG
Kerry Howard, ADFG-Habitat
Gordy Williams, ADFG
Pamela Bergmann, DOI
Pete Griffin, USFS
Loren Kelly, B.C. MEMPR

Alaska State Legislature

Senator Kim Elton
Senate Democratic Whip



Representative Beth Kerttula
House Democratic Whip

State Capitol
Juneau, AK 99801

May 26, 2005

The Honorable Geoff Regan, Minister
Fisheries and Oceans Canada
200 Kent Street
Ottawa, Ontario
Canada
K1A 0E6

Dear Minister Regan:

You are no doubt aware of Redcorp Ventures Limited's recent announcement that it is placing on hold its Tulsequah Chief project because of economic issues. This announcement raises new concerns for us, and we seek further information about the implications of this change.

We are especially concerned by information indicating DFO wants to make a final decision on the mine shortly and that this decision may be an approval. Concerns raised in our past letters, in addition to the new concerns raised by Redcorp's shaky finances, show that any such approval is unwarranted at this time.

Redcorp's May 17 announcement raises questions about the company's ability to construct, operate and later decommission this project in the exceptionally valuable and sensitive Taku River watershed. The Taku hosts a multi-million dollar fishery that is an important source of employment to Alaska fishermen and subsistence food to Alaska families. Mitigation and safety measures add cost to a project, and by indicating its belief the project is not financially viable, Redcorp raises grave concerns about the ultimate sustainability of this project. We wonder whether appropriate bonding will be available from the financially strapped company.

We are especially concerned with the issues of responsibility and compensation. What would happen if Redcorp were to begin the project and then declare bankruptcy and abandon the site? Where would responsibility lie for site reclamation and compensation to Alaska fishermen for damages done? According to a February 12, 2004 missive from Environment Canada to an Atlin group, "There is no federal

The Honorable Geoff Regan
May 26, 2005
Page 2

legislation that would authorize the Government of Canada to provide compensation in these circumstances."

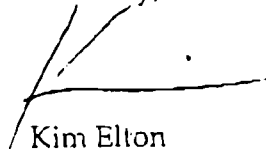
Sue Farlinger of the Canadian Department of Fisheries and Oceans (DFO) told attendees at the Juneau public forum held in February that "any FA issues can be managed through detailed review, mitigation, and compensation...if there are any residual impacts and the impact is considered acceptable, then there is compensation in the form of replaced habitat for any impacts." However, she made no mention of financial compensation to Alaska fishermen for any damages to their livelihoods. Nor did she explain how compensation might be possible for damages to the critical Flannigan and Shazah Slough spawning and rearing areas. We ask that you clarify these two questions, especially in light of Redcorp's solvency issues.

The apparent poor status of Redcorp's finances also calls into question its ability to clean up ongoing acid mine drainage pollution at both the Tulsequah Chief and Big Bull sites this year by the June 30 deadline. We would appreciate an update on the status of cleanup efforts to date. If Redcorp does not meet the June deadline, what actions will your government take to enforce the cleanup order?

In conclusion we ask you not to approve this mine until the outstanding technical and financial issues have been addressed. These issues are far too significant to be addressed in permitting after an approval has been given. Your own Canadian Ambassador McKenna argued convincingly in his recent New York Times piece that the Boundary Waters Treaty is essential to neighborly relations and an International Joint Commission review is the ideal way to resolve these issues.

We look forward to your response to these important issues.

Sincerely,



Kim Elton



Beth Kerttula

cc: The Honorable Pierre Pettigrew, Minister, Foreign Affairs Canada
The Honorable Lisa Murkowski, United States Senate
The Honorable Frank Murkowski, Governor of Alaska
Mr. John Turner, Assistant Secretary, United States Department of State
Mr. Cam Toohey, Special Assistant to the Secretary, United States Department of Interior
Mr. McKie Campbell, Commissioner, Alaska Department of Fish & Game
Mr. Ron Irwin, Commissioner, Alaska Department of Natural Resources
Mr. Pete Christich, Office of International Affairs, United States Environmental Protection Agency



OFFICE OF THE MAYOR

Telephone: (907) 586-5240; Facsimile: (907) 586-5385
Mayor@ci.juneau.ak.us

August 13, 2012

The Honorable Peter Kent, Minister of the Environment
Les Terrasses de la Chaudière
10 Wellington Street, 28th Floor
Gatineau, Quebec K1A 0H3
Canada

Dear Minister Kent:

I write to you about the recent closure of the Interim Water Treatment Plant at the Tulsequah Chief Mine site.

The City and Borough of Juneau has been monitoring the Tulsequah Chief proposal, and has participated in public meetings for many years. The Taku River provides significant economic, recreational, and cultural benefits to Juneau and the remainder of Southeast Alaska. For that reason, the health and productivity of the river and its fish and wildlife are of great concern to us.

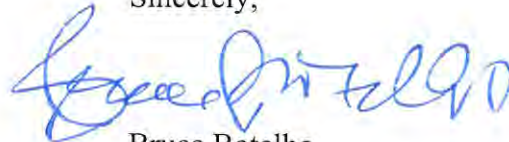
On August 19, 2010, I wrote Environment Canada regarding Chieftain's proposal to develop the Tulsequah Chief Mine. One of my major concerns at that time was whether Chieftain had the capacity to properly address the ongoing acid mine drainage pollution issue. In its August 22, 2010 reply, Environment Canada observed that the Environmental Assessment certificate for the mine contained a number of commitments related to the acid mine drainage problem. My concern was, and remains, that the mining company would not have the resources to follow through on those commitments.

We have not seen a response from the Canadian or British Columbia regulatory agencies regarding Chieftain's closure of the water treatment plant, nor have we seen a specific plan and timeline for the company to re-start the plant. While Chieftain's June 6, 2012 letter to Environment Canada references a number of options, it is unclear if these options are workable, when they would be implemented, and if Chieftain can raise funds sufficient to re-start the water treatment plant.

In any event, it would seem prudent to explore what alternatives exist, not only to treat the acid mine drainage in the immediate term, but also to provide a permanent remedy that does not depend on Chieftain or a developed mine.

I look forward to your response.

Sincerely,



Bruce Botelho
Mayor

cc:

Senator Lisa Murkowski, U.S. Senator - Alaska
Senator Mark Begich, U.S. Senator - Alaska
Representative Don Young, U.S. Representative - Alaska
David A. Balton, Deputy Assistant Secretary of State
Kim Elton, U.S. Department of the Interior
Pamela Bergman, U.S. Department of the Interior
Steven Wiener, Environmental Protection Agency
Cindi Godsey, Environmental Protection Agency
The Honorable Christy Clark, Premier
The Honorable Keith Ashfield, Minister, Department of Fisheries and Oceans
The Honorable Terry Lake, Minister of Environment
The Honorable Rich Coleman, Minister of Energy and Mines
Senator Dennis Egan
Representative Beth Kerttula
Representative Cathy Munoz
Cora Campbell, Commissioner, Alaska Department of Fish and Game
Gordy Williams, Alaska Department of Fish and Game
Sharmon Stambaugh, Alaska Department of Natural Resources



UNITED FISHERMEN OF ALASKA

211 Fourth Street, Suite 110
Juneau, Alaska 99801-1172
(907) 586-2820
(907) 463-2545 Fax
E-Mail: ufa@ufa-fish.org
www.ufa-fish.org

March 8, 2010

Honorable Sean Parnell
Governor, State of Alaska
PO Box 110001
Juneau, Alaska 99811-0001

Dear Governor Parnell,

United Fishermen of Alaska (UFA) requests your assistance in addressing a serious issue on the Taku River that involves salmon production and salmon markets. Acid drainage from a currently inactive Canadian mine is destroying prime rearing habitat in a tributary drainage and threatens potential future harvests for multi gear commercial fishing groups.

The Taku River is a large multi-drainage, trans-boundary system that enters salt water roughly 25 miles southeast of Juneau. It is the largest producer of salmon in all of Southeast Alaska, with substantial populations of all five salmon species that support significant commercial and sport fisheries. An earlier analysis estimated the economic impact of Taku River salmon harvest on the Juneau community at roughly \$25 million annually. More recent advances in salmon values undoubtedly have increased that impact including regional catches of Taku bound fish in other parts of Southeast, Alaska.

A multi-metal mine in Canada on the tributary, Tulsequah River has been inactive for many years until a recent attempt by a Canadian company to restart the mine. During the inactive period substantial acid drainage from the mine site had been noted as well as an associated "dead zone" in the river area surrounding the entry of that acidified flow. The affected area has been documented by Alaska Department of Fish and Game biologists in what is otherwise productive salmon rearing habitat. Alaskan efforts to persuade Canadian authorities to remedy this situation have been initiated in the Pacific Salmon Commission, through the State Department to bring the issue before an International Joint Commission, and in discussions with a prior Premier of British Columbia. Those industry led efforts have produced no resolution.

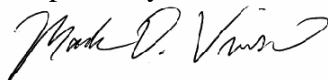
Complete clean-up of the existing acid drainage was one of the requirements placed on the new Tulsequah Chief mine developer by the Province of British Columbia. However, that developer, Redfern Corp., has entered bankruptcy after substantial development work on the site but no attempt to reduce the acidic flow. In fact, observations at the site suggest that the flow may have been exacerbated. Any increased effects on salmon rearing habitat have yet to be documented. But, controversies surrounding the failed redevelopment of the Tulsequah

Chief mine have garnered considerable media attention, including focus on the lingering acid leakage. Speculation about negative effects on the quality of Taku-origin salmon are factually unfounded, but the mere perception of a potential problem is all that is necessary to undercut Alaskan harvested Taku River salmon in the marketplace.

Taku River salmon are extremely important to fishermen and associated businesses throughout Southeast Alaska. It is also the only fishery for a small number of Canadian fishermen. The existence of several Alaskan businesses can be jeopardized if the market for Taku salmon is upset. We request your help in approaching Canadian provincial government to remedy and/or begin clean-up efforts of the current site.

In advance, we thank you for your time and attention to this problem. We are hopeful that your efforts will end risks from Canada's prolonged avoidance of a straightforward small mine clean-up, and begin a dialogue thus, finally bringing closure to a long standing issues with both sides of the border benefiting.

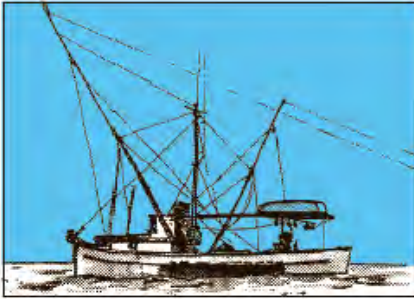
Respectfully,



Mark Vinsel
Executive Director

MEMBER ORGANIZATIONS

Alaska Crab Coalition • Alaska Independent Fishermen's Marketing Association • Alaska Independent Tendermen's Association
Alaska Longline Fishermen's Association • Alaska Scallop Association • Alaska Trollers Association • Alaska Whitefish Trawlers Association
Aleutian Pribilof Islands Community Development Association • Armstrong Keta • At-sea Processors Association • Bristol Bay Reserve
Bristol Bay Regional Seafood Development Association • Cape Barnabas Inc. • Concerned Area "M" Fishermen • Cook Inlet Aquaculture Association
Cordova District Fishermen United • Crab Group of Independent Harvesters • Douglas Island Pink and Chum • Fishing Vessel Owners Association
Groundfish Forum • Kenai Peninsula Fishermen's Association • Kodiak Regional Aquaculture Association • North Pacific Fisheries Association
Northern Southeast Regional Aquaculture Association • Petersburg Vessel Owners Association • Prince William Sound Aquaculture Corporation
Purse Seine Vessel Owner Association • Seafood Producers Cooperative • Sitka Herring Association • Southeast Alaska Fisherman's Alliance
Southeast Alaska Regional Dive Fisheries Association • Southeast Alaska Seiners • Southern Southeast Regional Aquaculture Association
United Catcher Boats • United Cook Inlet Drift Association • United Southeast Alaska Gillnetters • Valdez Fisheries Development Association



Alaska Trollers Association

130 Seward St., No. 205
Juneau, Alaska 99801
(907) 586-9400
(907) 586-4473 Fax

August 6, 2012

Senator Dennis Egan
Representative Beth Kerttula
Representative Cathy Munoz
Alaska State Legislature
Juneau, AK 99801-1182

Dear Senator Egan and Representatives Kerttula and Munoz:

On behalf of Alaska Trollers Association (ATA), I want to thank you again for forming the Taku River Task Force. Your commitment to this issue and the good work done by your staff members to assist the Task Force in completing their work was very much appreciated. During the course of its hearings and meetings, the Task Force clearly identified water quality as an ongoing issue. This is the subject of my request today.

The Taku Task Force process was interesting, timely, and useful in educating the public on a variety of issues and laws relevant to permitting, monitoring, and enforcement of potential development projects in the Taku River watershed. Briefings by the agencies and US Coast Guard helped clarify some long-standing issues and highlighted the remarkable diversity and bounty of natural resources that the Taku River provides residents of both the US and Canada. As you well know, the fisheries resources of the Taku watershed are of significant importance not only to local residents, but also commercial, sport, and subsistence users throughout the region.

Chieftain Metals' recent shut down of the water treatment plant at the Tulsequah Chief Mine is of great concern to fishermen, due to the increased potential for harm to salmon, critical habitat, and water quality. This could ultimately affect the public's perception of Alaskan and Canadian seafood products. Alaska's salmon marketing program is based on the story of healthy, sustainable fish reared and harvested in Alaska's pristine waters. The adverse effect of pollution – real or perceived - could taint our reputation for delivering wholesome fish to market.

In 2010, Governor Sarah Palin, Natural Resources Commissioner Tom Irwin, the Alaska Congressional Delegation, Deputy Assistant Secretary for Oceans and Fisheries David Balton, and the US Interior Department staff all sent inquiries regarding Canada's ability to protect habitat in the face of the Tulsequah Chief Mine development. It seems reasonable to surmise that such attention helped influence construction of the water treatment plant. Unfortunately, it now appears that Chieftain does not intend to make good its previous commitment to treat effluent from the mine site.

To date, Canadian and British Columbia regulatory agencies have been silent on the closure of the water treatment plant. Chieftain Metals has yet to announce a specific plan or timeline for re-starting the plant. And while Chieftain's June 6 letter to Environment Canada references a number of options, it is unclear whether any of those options are feasible, or if Chieftain intends to re-start of the treatment plant at all.

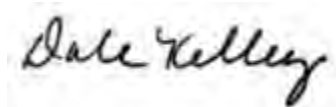
Chieftain and the BC and Canadian agencies have indicated that a proper cleanup requires development of the Tulsequah Chief mine. However, given a variety of financial challenges and an apparent absence of investors, Taku River Tlingit First Nation resistance to an access road, and numerous permitting issues, it seems unlikely that Chieftain will

reinitiate mine operations any time soon. Thus, it seems prudent to develop options to prevent mine drainage pollution, and to do so in a way that does not rely on the presence of a working mine.

I would encourage you to work with Governor Parnell, the Alaska Delegation, the US State Department, and all appropriate state and federal agencies, to find ways to persuade both BC and Canada to develop appropriate cleanup strategies at the Tulsequah mine site.

Please don't hesitate to contact me if I can be of assistance or answer questions regarding ATA's position on this matter, or any other issue of importance to the fishing industry.

Sincerely,

A handwritten signature in cursive script that reads "Dale Kelley". The ink is dark and the signature is centered on the page.

Dale Kelley
Executive Director

Cc:

Cora Campbell, Commissioner, Alaska Department of Fish and Game
David Bedford, Deputy Commissioner, ADFG / Alaska Commissioner Pacific Salmon Commission
Gordy Williams, Alaska Department of Fish and Game
Tom Irwin, Commissioner, Alaska Department of Natural Resources
Sharmon Stambaugh, Alaska Department of Natural Resources
Senator Mark Begich
Senator Lisa Murkowski
Representative Don Young
Deputy Assistant Secretary of State David A. Balton
Steven Wiener & Cindi Godsey, US Environmental Protection Agency
Kim Elton & Pamela Bergman, US Department of the Interior

Garry Alexander
Environmental Assessment Office
Victoria, BC V 9V1
April 26, 2010

Mr. Alexander:

Thank you for the opportunity to comment on the transfer of the Tulsequah Chief Mine's Environmental Assessment Certificate to a new mining project proponent (2224004 Ontario Inc.). Please consider the following as representing concerns of the Douglas Indian Association with regard to the status of the project under new ownership.

The Taku and Tulsequah Rivers are a part of the Traditional Territory of the Tlingit People who are represented by the Douglas Indian Association. All the components of the ecology in the river valley, including the water and its inhabitants, are precious to the Tlingit and are protected as kin. These ecological components must survive for the people to survive over the long term. We must see that these living systems are protected to the highest standards that apply in Canada and the United States, and we have participated in the Project Review Committee over the past many years to see that these standards are upheld.

Please make every effort to inform the new mining proponent that by assuming ownership of the Tulsequah Chief Property that there is a responsibility inherent in developing this mine that will exist from now until the time that there are no longer effluents from the operation discharging into the waters of the Tulsequah and Taku Rivers from any of their activities.

In particular, we would like to see that the Interim Water Treatment Plant be in place and functioning as the first work order in construction, and that there be a confirmation that all water quality objectives will meet federal mine effluent regulations prior to the start of any mine operations.

We suggest that there be a third party chosen to ensure that these activities are taken, and guaranteed by the authority of your Minister of Environment, rather than vested in a new and unknown party (Ontario, Inc.), and that there be a report through the Environmental Effects Monitoring Program (EEM) to specify the details.

Yours sincerely,

Douglas E. Dobyns
Environmental Planner
(907) 364-3567

TRTFN Website Posting

August 1, 2012

Recent Activities

On July 16, 2012, the Taku River Tlingit First Nation ("TRTFN") advised both Chieftain Metals and BC that due to a combination of critical issues (outlined below), TRTFN is pulling the TRTFN technical teams from the Environmental Assessment Office & Northwest Mine Development Review Committee tables.

We are responsible to ensure TRTFN time and resources are spent responsibly and that all pieces are in place for the TRTFN Government to make a decision on the Tulsequah project in accordance with our TRTFN Mining Policy, Letter of Understanding with Chieftain Metals, Wóoshtin wudidaa: Atlin Taku Land Use Plan, Wóoshtin Yan Too.Aat: Land and Resource Management and Shared Decision Making Agreement, TRTFN Constitution Act, 1993 and Tlingit khustiyxh, or 'way of life'.

Despite serious concerns with various items (for example, the poor quality of the amended application to the EAO, continued delays over the past few months with the company's construction plans and start-up activities, along with delays in information being provided at the EA and permitting tables), the TRTFN had continued to work within these processes that are now well behind schedule and incurring additional expense. However, in light of recent developments, there are simply too many breaches, gaps and questions around the viability of the currently proposed Tulsequah Project for TRTFN to continue on as though we are meaningfully meeting the requirements set out in the agreements and legislation stated above. Therefore, at this time, it is no longer financially or environmentally responsible for the TRTFN to continue in this manner until the below issues are adequately addressed.

Water Treatment Plant

Chieftain Metals shutting down the water treatment plant for an unspecified amount of time is of extreme concern to the TRTFN. [Please refer to the "Water Treatment Plant" webpage for more information.] As a result, the company is now in violation of both federal and provincial waste discharge permits, and has breached the understanding we had with them in our Letter of Understanding. The material effect of this action is that it allows acid mine drainage to discharge unabated and untreated into the Tulsequah River. This discharge places both TRTFN aboriginal and commercial fishery resource values at risk.

Construction and operation of the water treatment plant was one of the strongest, most positive commitments Chieftain Metals made to the TRTFN. To hear that the water treatment plant has been shut down completely and indefinitely, largely for financial reasons, has undermined our

confidence in Chieftain Metal's ability to live up to its current commitments – as well as successfully develop, operate and adequately close a complex mine.

The company's inability to properly construct and operate the water treatment plant during the start-up phase brings to light that TRTFN should not continue in a process that would provide further approvals and issue amendments to the existing environmental certificate and the special use permit while Chieftain is in breach of current permitting conditions and commitments. TRTFN must ensure we are committing time and resources to a viable and responsible project and not remain involved in processes that, currently, pose a potential risk of further harm to the environment.

TRTFN has firmly expressed our positions to both the province and the company, and we are actively pursuing action regarding the water treatment plant.

Feasibility Study

TRTFN is extremely challenged trying to assess Chieftain Metal's project decisions in the absence of an updated feasibility study. This was anticipated back in December 2011.

Significant delays in releasing the feasibility study raise substantial concern about the economic viability of the project, which is essential to responsible and sustainable development. TRTFN must have confidence that we are dealing with a viable project. In order to have that confidence, we must see an updated feasibility study at this late stage.

Impacts, Mitigation & Mutual Benefits Agreement

After several months of negotiations, there is still no agreement on several key sections of the Impacts, Mitigation & Mutual Benefits Agreement [often referred to as an Impacts & Benefits Agreement or IBA].

In accordance with our TRTFN Mining Policy, this agreement is required for the TRTFN to make a decision on the Tulsequah Project.

Downstream Access

There were some funding challenges in completing an independent review of Downstream (i.e. barging) access to the mine site which significantly delayed the submission of the independent review to the TRTFN. However, an independent review of the physical aspects of downstream access has now been completed and yields findings that are different than the conclusions of Chieftain Metals' Impracticability Report.

To date, TRTFN has been unable to complete a financial independent review of downstream access, as an updated feasibility report has not yet been made available.

Clarity on the above issues will be required for TRTFN to make a decision on access to the proposed mine site.

Funding

Given the fact that all of the timelines for this work have gone well beyond the original targeted timelines and scope of work, the TRTFN have now utilized all resources available to continue and complete the work required to bring this forward to a Joint Clan Meeting for decision. Therefore, additional funding will have to be secured, in conjunction with resolution to the above stated issues.

We look forward to having the above issues resolved and hearing some creative solutions from Chieftain Metals on a positive way to move forward that meets the needs of all involved.

We would like to advise our members that we will continue to update the Tulsequah section of our website as new information arrives.

<http://trtfn.yikesite.com/tulsequah-chief-project/recent-activities>

**RISK
ANALYSIS
OF THE
CHIEFTAIN
METALS
TULSEQUAH
CHIEF MINE
PROPOSAL**

Joan Kuyek, D.S.W.

February 20, 2012

RISK ANALYSIS

OF THE CHIEFTAIN METALS TULSEQUAH CHIEF MINE PROPOSAL

This report summarizes the risks and uncertainties of the Chieftain Metals Tulsequah Chief mine proposed in the transboundary Taku watershed in northwest British Columbia near the border with Alaska. Chieftain also owns the nearby Big Bull mine site, but has no permits to operate it. Prepared at the request of Rivers Without Borders from publicly available documents, this report looks at the judgement and reliability of management, the reliability of mineral and cost estimates, undeclared potential long-term environmental liabilities, and economic returns to the local community.

HISTORY OF REDCORP

The Tulsequah Chief and Big Bull mines in northwest British Columbia (BC) were operated by Cominco (now Teck Resources) from 1951 to 1957. In 1992, Redfern Resources, which later became a wholly-owned subsidiary of Redcorp Ventures (collectively, “Redcorp”), purchased the abandoned mines from Cominco. This sale included transferring liability for a serious ongoing acid mine drainage problem to Redcorp. Redcorp’s attempts to reopen the mines ended when the companies declared bankruptcy in March 2009. Losses to secured creditors of Redcorp were approximately \$100 million¹ and investors’ losses were almost \$190 million.²

During Redcorp ownership, the Tulsequah Chief mine was the subject of an acrimonious lawsuit with the Taku River Tlingit First Nation (TRTFN)³ over its right to consultation that went all the way to the Supreme Court of Canada.⁴ The Tlingit knew that the mine and the 162 km access road it required would “*open up the heart of the territory, undermining the sustainability of the Tlingit’s land-based economy, and compromising land use planning and treaty negotiations.*”⁵ Due to this opposition and the high costs of road construction, Redcorp changed its mine access plan in January 2007 from a road to river access using a fleet of barges.⁶ The barge plan faced tremendous public opposition in Juneau.

The proposed mine is on the Tulsequah River, a major tributary of the Taku. The Taku River is Southeast Alaska’s most productive salmon fishery.⁷ Despite requests from Alaska and the US federal government, and Canadian federal cleanup orders, Redcorp did little to stop the acid mine drainage.⁸ Environment Canada issued Inspector’s Directions to remediate the pollution from the Tulsequah Chief and Big Bull mines in 2002, 2005, and 2009. When Chieftain purchased the two mines, the company became liable for the acid mine drainage problem. Chieftain’s technical consultant, SRK Consulting, warned Chieftain in 2011 that failure to meet the compliance order could result in as much as \$100,000 per day in fines, with possible jail terms for company directors.⁹

RISK ANALYSIS

OF THE CHIEFTAIN METALS TULSEQUAH CHIEF MINE PROPOSAL

CHIEFTAIN METALS

In September 2010, Chieftain Metals purchased the Tulsequah Chief and Big Bull mines for \$15.5 million from the bankruptcy receiver.¹⁰ Chieftain, originally incorporated in August 2009 as 222404 Ontario Limited with three founding directors – Terence Chandler, Victor Wyprysky and Terry Byberg – was established for the express purpose of purchasing the Tulsequah Chief property following the bankruptcy.¹¹ Chandler was the CEO of Redcorp throughout most of its history.

Wyprysky and Byberg had been the CEO and Secretary, respectively, of Strategic Resource Acquisition (SRA). SRA, founded in 2006, purchased the old Gordonsville zinc-lead mine in Tennessee through a subsidiary, MTZ, that same year. On July 1, 2008, this mine was brought back into commercial production, operated for three months and went on care and maintenance. After failing to file its audited financial statements for the fiscal year ended September 2008, and failing to make interest payments on loans, SRA and MTZ filed for bankruptcy in the US and Canada in mid-January 2009. SRA listed assets of \$1 million and debt of as much as \$100 million; MTZ listed assets of \$50,000 and debt of as much as \$50 million.¹² The mine's assets were written off for salvage, over \$11 million in debt was transferred to MTZ, and SRA emerged from receivership intact. In March 2010, SRA purchased Redcorp's Portuguese mine assets from the Redcorp bankruptcy receiver. SRA changed its name to Portex Minerals in April 2011.¹³ Portex and Chieftain Metals share corporate offices, some management and one director.¹⁴

SRA and Redcorp were reincarnated in Portex and Chieftain, unburdened by the debts they had accumulated. Chieftain retained most of the Tulsequah Chief environmental approvals and permits and added new members to its Board. Chandler and Byberg became senior company management. Wyprysky became CEO and President.¹⁵

By January 2011 (less than two years from the time Redcorp applied for bankruptcy protection, and within four months of purchasing Tulsequah Chief from the receiver), Chieftain obtained the BC Project Approval certificate and amendments for the Tulsequah Chief proposal and had revised mineral estimates on Tulsequah Chief and Big Bull from SRK Geologist Gilles Arseneau (based on recovering mineral prices). Chieftain also issued an Initial Public Offering and struck a deal with Cominco for a \$5 million loan to build the interim water treatment plant to address the acid mine drainage problem.¹⁶ The treatment plant was installed in December 2011.

Meanwhile, the impacts of the bankruptcies of SRA and Redcorp on their creditors and investors go unacknowledged.¹⁷ As previously noted, losses to secured creditors of Redcorp were approximately \$100 million and investors' losses were almost \$190 million.¹⁸

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MINERAL ESTIMATES

Until a formal feasibility study with independently verified mineral reserves at the Tulsequah Chief site is released, observers should treat the current estimates with scepticism. **The minerals at Tulsequah Chief and Big Bull are only indicated and inferred resources; they are not reserves, as defined by NI 43-101. In other words, the quantity of minerals that may be economically feasible to mine has not been established.**¹⁹

In two of the three attempts since 1995 to complete feasibility studies (AMEC and Hatch in 2005 and Global Project Management in December 2008), the company halted the feasibility study when the minerals were found to be uneconomic to mine. The only study completed was by Wardrop in March 2007, which estimated capital costs of \$201 million, based on the much cheaper barge option rather than an access road.²⁰ When this study was updated in August 2008, capital costs had increased by 47.4%.²¹ Global Project Management, in December 2008, found the capital costs had increased to over \$500 million.²² It is Wardrop, the company responsible for the most optimistic studies of the project, that Chieftain has now hired to undertake a new feasibility study, expected this April.

The history of technical reports for Tulsequah Chief and Big Bull are as follows:

- 1995: Rescan undertakes a mineral resource evaluation as part of a Feasibility Study.
- 1997: Rescan updates the technical report.
- 2005 (May): Amec and Hatch issue a technical report that finds the deposit is uneconomic to mine²³ (based on a \$94 Net Smelter Return cutoff) and the Feasibility Study is stopped mid-stream by Redcorp. The report was never made public.
- 2007 (March): Wardrop issues a technical report based on proposed river access instead of the 162 km road access. Capital costs were estimated at \$201 million.²⁴
- 2008 (July): Wardrop revises its cost estimate and increases capital costs by 47.4%.²⁵
- 2008 (December): Global Project Management, hired to build the mine, reviews the estimates, costs and time frame, and finds that the capital costs have now increased to over \$500 million and that the completion date is unrealistic. Redcorp does not release the report, but decides to suspend development of the mine²⁶ and declares bankruptcy shortly afterwards.
- 2010 (November): Gilles Arseneau of SRK undertakes a new mineral estimate based on existing drill results and recommends more drilling to delineate possible expansions of the deposits at Big Bull and Tulsequah Chief.

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- 2011 (June): SRK completes a Preliminary Economic Assessment (PEA) for Tulsequah Chief that is fraught with caveats: *“the Preliminary Economic Assessment summarized in this technical report is intended only to provide a high-level review of the project potential. The PEA mine plan and economic model include the use of inferred resources which are considered too speculative to be used in an economic analysis except as allowed for PEAs. There is no guarantee that inferred resources can be converted to indicated or measured resources and, as such, there is no guarantee that the project economics described herein can be achieved.”*²⁷

RELIABILITY OF COMPANY INFORMATION

Like Redcorp and SRA before it, Chieftain appears overly optimistic about the possibilities of developing the mine, and underestimates the unknowns and risks. An example is the Chieftain Corporate Presentation dated February 1, 2012 which makes several incomplete or questionable representations:²⁸

- Slides 1 and 11 note the deposit contains 46% precious metals. In fact, the “payable” silver resources are estimated at 12.456 million ounces and the “payable” gold at 387,000 ounces. The gold is distributed throughout the deposit; thus other metals have to be mined to get at the gold.
- Slide 4, Tulsequah Chief Resource Estimate, includes the Big Bull deposit, but does not indicate that it was explicitly excluded from the Environmental Assessment for the Tulsequah Chief Mine, and will likely require a new permitting process.²⁹ It is important to understand that Chieftain, like Redcorp, often discusses the “Tulsequah Project” as if it includes both mines, Tulsequah Chief and Big Bull.
- Slide 5, which lists Gross Metal Value, has fine print noting that *“The particulars contained herein were obtained from sources that Wellington West Capital Markets Inc. (“WWCM”) believes to be reliable, but are not guaranteed by us and may be incomplete or inaccurate.”* Wellington West was Chieftain’s primary investment banker for the December 2010 Initial Public Offering.
- Slide 8, Access and Logistics, does not mention the road access plan is still being negotiated with the Taku River Tlingit, and there is no reason to assume a conclusion acceptable to the company can be speedily reached.
- Slide 11, Tulsequah Chief Project Overview, shows that the company eliminated \$175 million worth of debt without revealing that this was through a bankruptcy procedure in 2010. The resource estimate (6.28 million tons) is based on indicated and inferred resources, not on measured reserves. There may be problems mining the ore from old workings at Big Bull.³⁰ Rock mass solidity problems at Tulsequah Chief “will impact the stability of any retained rib and sill pillars, the stability of secondary stopes in the higher extraction areas as well as elevated risks of brittle rock failure in the lower areas of the mine.”³¹

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- Slide 13, which describes possible improvement to the Net Asset Value of the proposed mine, is entirely speculative. Spot pricing is not used to determine long term value of metals because it is so volatile. Furthermore, the added value for proposed metallurgical improvements does not take account of increased milling costs; the additional mineral resources are speculative at this point; the proposed hydroelectric plant has neither feasibility study nor permitting; and Chieftain has no permits to mine the Big Bull deposit.
- Slide 15, Upcoming Tulsequah Chief Project Milestones, presents an unrealistic time frame for the project with a projected start date of Q1 2015. It fails to mention that the Project Approval Certificate for the Project, renewed once, will expire in December 2012 unless the company has “substantially started the project”³² or that Chieftain does not possess the Special Use Permit (SUP) necessary for construction and operation of the access road. Nor does Chieftain mention that changes to the road route will require an amended BC Environmental Assessment process and an amended SUP. Although Chieftain will depend on river barging to support road construction in 2012-2014, no mention is made of the significant delays and problems experienced during Chieftain’s barging in 2011 and Redcorp’s similar barging operations in 2007 and 2008. Alaska’s considerable concerns about barging are not disclosed. Chieftain also fails to take likely problems with accessing financing seriously.³³
- Slide 30 presents the hydroelectric plant proposal. There are no publicly available studies to support the information supplied. The Knight-Peisold study is now five years old (see page 7).

Chieftain recently announced that it has hired Cutfield Freeman & Co. to “determine its financing strategy”.³⁴ Cutfield Freeman specializes in off-take agreements such as the one Redcorp had signed with Gold Wheaton just before its bankruptcy. This agreement forward sold all the gold for \$90 million (based on deliverables) plus \$400/ounce of gold (less if the price fell below \$400.)³⁵ In December 2011 Chieftain signed an agreement with Royal Gold similar to the one with Gold Wheaton. Chieftain’s Corporate Presentation refers to a “\$60M Project Financing Transaction.” However, only \$10 million of this amount has been received by Chieftain and receipt of the remaining \$50 million is contingent on specific conditions related to mine development and permitting. This financing is set up as a loan payable with repayment starting in three years. The entire amount is secured by the Tulsequah Property and the Tulsequah mineral claims.³⁶ Two of the clients that Cutfield Freeman boasts on its website raise flags: IncaPacific in Peru and the Greystar Angostura Project in Colombia. Both these mine proposals met with enormous public opposition in their host countries. As a result, IncaPacific had its claims cancelled by the Peruvian government³⁷ and Greystar was denied the right to develop its open pit mine in a protected area.³⁸

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COST ESTIMATES

There are still no up-to-date mine development cost estimates based on actual engineering studies. Until Chieftain produces a detailed feasibility study, now expected in April 2012, observers should be very sceptical of the company's claims. The data is in many places fifteen years old. Prices of mine equipment, consumables and fuel will have in some cases doubled. A few examples are discussed below.

■ **Diesel costs:** The average price of road-diesel fuel for commercial users in 2010 alone increased by 12.5% over 2009 in Canada. The operating costs are based on a total of 17.4 million litres of diesel fuel consumed per year at full production, which will be trucked from Skagway. SRK estimates the cost per litre to be \$0.75 long term. No inflation in price is included. More recently, Chieftain COO Keith Boyle told an Atlin community meeting on February 9, 2012 that fuel would cost \$1.15 per litre.

■ **Proposed hydroelectric power plant.** The company is speculating about the building of a hydroelectric plant to cut its costs. The Wardrop 2007 Technical Report states that "The cost of generating electric power on site might be reduced by installing a hydroelectric system at Rogers Creek, 1.5 km south of the planned mine site. A study was undertaken by Knight-Piesold Ltd. in November 2006 detailing the installation of a 7.5 MW hydroelectric generating plant using Rogers Lake as a reservoir. Two options were considered – Dam Storage and Run-of-River. Neither was capable of generating power year-round." The Run-of-River option would require \$22.4 million capital.³⁹ The June 2011 SRK report found that "A pre-scoping analysis suggests a capital expenditure in the order [of] \$30M and \$5.5/kW per hour operating cost for a 7.5 MW hydroelectric power plant."⁴⁰

The plant would require a new Environmental Assessment. No further details are given in the Wardrop Technical Report and the Knight-Piesold study is not publicly available. The Tulsequah Chief Mine only has a nine year life at the longest, and the process of planning, permitting and building the power plant could take several years.

■ **Road Route:** Redcorp's experts considered the road uneconomic in 2006, and proposed river access using a fleet of barges and tow vehicles operating from Alaska. Throughout the permitting of the river access option, the Taku River Tlingit argued that the road option should be removed from the permits. The First Nation wrote in February 2009: "*No one believes that the access road will ever be constructed, particularly now in light of the capital financing that the proponent is experiencing with an access alternative 1/3 the cost of the road, and it is disingenuous to keep the fiction alive.*"⁴¹

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Road construction is estimated at \$65 million,⁴² which is the cost used in the 2007 Wardrop report. There is no documentation for this cost and road estimates are now five years out of date. In January 2012 Chieftain CEO Victor Wyprysky said the road costs would be \$75-80 million.⁴³ Chieftain's presentation to the February 9 Atlin community meeting noted that the Warm Bay part of the road route does not meet standards for trucking; upgrades would increase costs and delays. The Tulsequah Chief to Skagway round trip haul distance is over 700 km, over roads that will be very difficult to traverse in the winter.

The route is still being negotiated to satisfy the very serious concerns of the Taku River Tlingit. The Supreme Court decision requires that these concerns be addressed. Chieftain originally proposed three possible road routes, all different, and possibly more expensive, than the route analyzed in Chieftain's cost figures to date, but has now settled on one route in its permit application to the BC Environmental Assessment Office.⁴⁴ The TRTFN have made no decision on any road route.

In 2008, Redcorp spent \$28 million building only 16 km of local access roads near the Tulsequah mine site which certainly raises questions about the estimate for the 130 km road.⁴⁵ A 2007 Guide to Construction and Rehabilitation Cost from the BC Ministry of Forests states: "*cost of grading and construction – low volume road, difficult conditions: \$1 million to \$2 million per km. Bridges cost more.*"⁴⁶

- **Maintenance for the 130 km road:** How did the 2011 SRK Assessment arrive at a road maintenance charge per tonne of concentrate? Multiplying the estimate on page 132 of this report, 124,600 tonnes of concentrate production per year, by the cost SRK uses – \$26.96 per tonne⁴⁷ – comes to \$3.36 million per year. The only other publicly available cost estimate for road maintenance is \$11.5 million per year from the 1998 BC Project Committee report.⁴⁸ The BC Mine Haul Road Design Guidelines, written by Tannant and Regensburg in 2001, indicate maintenance costs for a semi-permanent road per year almost equal the costs of construction.⁴⁹
- **Mine Closure and Road Decommissioning:** There is no specific cost allocated for road decommissioning. Experts note it costs almost as much to properly decommission a road as to build it.⁵⁰ The level of road decommissioning called for in Chieftain's plans and in the TRTFN/BC Land Use Plan requires extensive rehabilitation. A bond will have to be posted to ensure this is carried out, but the SRK report recommendation of \$10 million for the total project reclamation appears to be inadequate to carry out both road and mine site decommissioning. The SRK study notes that mine site "Closure costs were excluded from the capital cost estimate in this study."⁵¹

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The SRK assessment on page 141 states, “A closure cost allowance of \$10 M was applied as a capital cost at the end of the mine life. The potential timing and modality of closure bonding and reclamation costs were not addresses (sic) in the economic model other than the \$10 M placeholder amount.” Applying this cost at the end of mine life has a substantial impact on the cash flow analysis; further, there is no indication how the \$10 million amount was arrived at and it makes no specific mention of the specific cost of road decommissioning.

EXCLUDED COSTS

The June 2011 Preliminary Economic Assessment from SRK does not include any costing for taxes or royalties, First Nation compensation agreements, interest or financing.⁵² Financing costs are likely to be very high, considering the considerable risk involved with this mine.⁵³ Inflation is not considered. The SRK report includes a sustaining capital requirement of \$55 million in its capital cost estimate but does not seem to consider it when assessing the financial viability of the project. When adding this sustaining capital to the cost estimate, the overall Net Present Value of the project falls by an equivalent amount.

THE SRK CALCULATION OF NET PRESENT VALUE

Investors use calculations entitled *Net Present Value* and *Internal Rate of Return* to determine the attractiveness of a proposed project. Net Present Value (NPV), an indicator of value, is the sum of estimated cash flows (incoming and outgoing) from a project over its life less the purchase price and estimated financing costs. The Internal Rate of Return (IRR) is an indicator of the yield of an investment, comparable to an interest rate. IRR does not include inflation or potential changes in interest rates. The reliability of IRR and NPV calculations is dependent on the strength of the estimated costs and benefits used.

Ugo Lapointe⁵⁴ notes that the project is very sensitive to changes in several factors, meaning that relatively small changes to various costs or revenues can have significant effects on the economic viability of the mine:

- The project is highly sensitive to exchange rates, and has used an exchange rate of \$1.00US/\$.93CDN in its “mid” calculation.⁵⁵ “As most of the project costs are in Canadian dollars, but metal prices are in US dollars, as the Canadian dollar weakens, the NPV of the Project increases.”⁵⁶ Currently, the Canadian dollar is close to par with the US dollar.
- The project is highly sensitive to revenue factors (commodity prices, grades, metal recoveries, and exchange rate). Each 10% change in value of ore extracted represents a gain or a loss +/- \$115 million in NPV@8%.

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- The project is sensitive to operational costs. Each 10% change in operational expenses = +/- \$42 million in NPV@8%.
- The project is sensitive to start-up capital expenditures. Each 10% change in capital expenses = +/- \$28 million in NPV@8%.

MARKETS

The SRK report does not address markets for the minerals. The economics of a polymetallic mine depend on markets for all the metals produced, or the mine is then faced with stockpiling of the un-marketable concentrates or with losing income on concentrates with falling prices. The company does not appear to have budgeted for more than a two week on-site storage capacity.

Lapointe states a potential serious risk would be “*stalling or collapse of zinc prices. Zinc prices have been highly volatile over the last five years and are currently stalling at \$0.80US to 1.00. In the meantime, London Metals Exchange zinc stock warehouse is showing significant increase, suggesting a downward correction of zinc prices in the months to years to come. The Tulsequah Chief project is highly dependent on zinc prices as it is the main commodity therein (both in quantity and in value). A fall in zinc prices of just \$0.10US would result in about a \$50 million loss in NPV@8% (using SRK’s mid-case analysis). If zinc prices fall back to their low of \$0.50US (which followed the 2008 economic crisis), this would mean a loss of nearly \$150 million for the Tulsequah Chief project, jeopardizing its overall viability.*”⁵⁷

The concentrates will be contaminated with arsenic and antimony, and the 2007 Wardrop Report raised two problems that have not yet been resolved:

- Copper/Bulk concentrates. “*The arsenic content in the range of 1.4% is ...not an easy material to sell since the Chinese established a limit on imports that contain over 0.5% arsenic and 6.0% lead...The high Lead and Zinc contents will require that the material be sold to a smelter/trader that has the ability to blend this complex material.*”
- Lead Concentrates. “*The arsenic comments for the Copper/Bulk concentrates are applicable to the lead concentrates as well,*” which have an “*arsenic content in the range of 1.9%.*”⁵⁸

Wardrop also noted “the absence of letters of interest or letters of intent from potential smelters.”⁵⁹ Although Chieftain recently announced that metallurgy was being developed that may assist the company in dealing with this problem,⁶⁰ such innovations are currently speculative and will increase the costs of power, consumables and labour, which are not yet factored into the cost estimates.

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POSSIBLE PERMITTING AND CONSTRUCTION DELAYS

As noted Chieftain, like Redcorp, proposes a very optimistic timeline and isn't being totally accurate about its federal and provincial permitting situation. Potential for significant delays, and increased costs, include:

- **Possible problems with barge supply runs.** Chieftain will depend on river barging to supply the mine construction process in 2012 and possibly 2013 and 2014. Redcorp experienced accidents, delays and cancelled barge runs in 2007 and 2008. In 2008 the company planned 200 barge runs and only accomplished about 35. In 2011, Chieftain was not able to complete its planned barge runs, which cost the company several hundred thousand dollars.⁶¹ The members of the Juneau legislative delegation have established a Taku River Task Force to look into concerns about barging's effects on water quality and river habitat. Measures discussed by the Task Force could regulate and/or restrict barging options in order to protect water quality and salmon habitat.⁶²
- **Lack of a Special Use Permit:** Chieftain does not have the SUP needed for road construction and operation. The road routes now under consideration have changed since those approved in the original 1999 SUP, so an amended provincial Environmental Assessment and amended SUP will be needed.
- **Other permits:** Chieftain needs a variety of other permits before the mine can be opened.

UNACKNOWLEDGED ENVIRONMENTAL RISKS

"The risk of unanticipated ecological reclamation or restoration costs falling to current and future generations has to be viewed as considerable. Such costs do not only relate to unforeseen catastrophic events, but also to the more mundane aspects of site closure and remediation."⁶³

There are a number of potential environmental liabilities for the mine project, which are compounded by the financial fragility of the proponent. A few are mentioned below.

- **The Tailings Facility on the Shazah Fan.** The tailings from the mine that cannot be placed underground will be stored on the Shazah Fan (the delta of Shazah Creek). The tailings dump will be located on an "active flood plain and the dam may be subject to erosive attack in the event of an avulsion...the erosion protection measures are designed for a 200 year return period flood event on Shazah Creek."⁶⁴ Although this plan has received considerable study during the environmental assessments, serious concerns still remain, especially concerning the realities of a "200 year flood event" in a time when glaciers are melting due to climate change. The Shazah Fan and the Flannigan Slough downstream from the mine are considered to be extremely important rearing and staging areas for juvenile salmon.⁶⁵

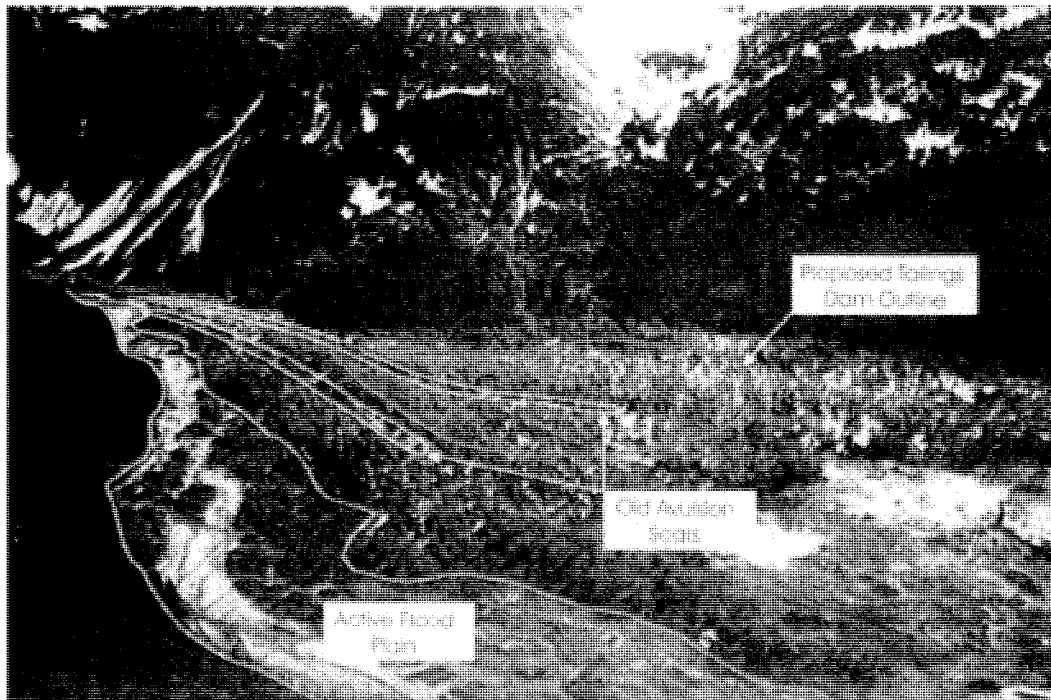
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The TRTFN stated in 2001: “Redfern’s sampling program revealed that out of all its sampling sites in the entire Tulsequah drainage, young-of-the-year Coho were most abundant in Shazah Creek wetland. Also, yearling Coho was most abundant in Tulsequah clear-water side channels and Shazah Creek wetland. Out of 50 sites inventoried for fish, the third highest Coho fry estimate came from a Shazah wetland site. Another of the Shazah wetland sites had the highest estimated Coho parr density of 31 sites, while another site contained the highest density of Dolly Varden of a certain age class.”⁶⁶

In addition, the proposed mixing zone from the tailings raised serious concerns with Alaskan regulatory agencies.⁶⁷ Leakage and/or catastrophic failure from the tailings area are likely to damage the fishery, and Alaska could seek legal remedy.

- **Avalanche Risk.** A preliminary avalanche assessment completed in 1997 as a part of the first stage of the review process found two converging avalanche paths that posed a threat to the mine site.⁶⁸ In both cases, “younger timber in the runout zones indicates that large avalanches have run to within 200 m of the former mine site.”⁶⁹ While such an avalanche would fall into the category of a rare but catastrophic event, only one such event would be required in the history of mine operations to generate grave long-term



The Shazah Fan (from the Ian Bruce report)

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damage to the Taku River and its salmon runs.” The proposed tailings pond is also identified as at risk from avalanche and the authors of the avalanche assessment believe that “...*the lack of timber in the runout zone is caused by snow avalanches and not by a glacial scour.*”⁷⁰

In addition to the avalanche threat to the mine site, the avalanche study found 11 avalanche paths along the proposed road route from the limestone quarry at the mine site to the confluence of the Sloko and Nakonake rivers that posed a high hazard to the road. These hazards are only partially identified in the project report and the assessing experts do not consider the avalanche control plan outlined by the proponent adequate.⁷¹ Given that the road route will change, additional analysis of avalanche risks is needed.

The avalanche threat along the proposed road is a serious one. Avalanches could at the least cause delays, and at the worst result in serious injury, loss of life and/or catastrophic spills of toxic substances. Use of the road is likely to result in spills of toxic chemicals. Given the inaccessibility of the area, cleanup (which often requires neutralization with sodium bicarbonate) will be difficult if not impossible. Such spills and accidents will likely result not only in regulatory penalties, but tort action.

ECONOMIC RETURNS TO THE LOCAL COMMUNITY

Chieftain proposes to fly workers into the site to stay for four weeks at a time, where they will live in a camp and work ten hour shifts. The June 2011 SRK report states that there will be 21 staff employed at the mine and 86 hourly rated labourers.⁷² Almost all jobs will probably require a high school diploma and fewer than 20 are either truck drivers or semi-skilled workers. The time needed for upgrading and training will limit the number of jobs available to local community members at mine start-up; as this is only a nine year mine, such jobs will also be of limited duration once training is completed. With a number of mines coming on-line in BC, Yukon and Alberta at the same time, Chieftain may have trouble finding enough skilled workers.

Drivers will be in a hurry to complete the 360 km (one way) trip to the mine or to Skagway. They are unlikely to stop in Atlin for any significant time, or for supplies and refueling, unless the weather prevents their travel on through. During construction, the equipment and materials will be brought in by barge from Juneau. Thus, it is unlikely that the trucking will bring significant economic benefits to Atlin.

The Taku River Tlingit have partnered with Arctic Construction for work on the mine site in the past, and there may be other opportunities for contract work with the mine. However, such partnerships are subject to the risks and uncertainties of the Tulsequah Chief project, including another company bankruptcy. In the Redcorp bankruptcy, Arctic Construction was an unsecured creditor owed over \$4 million.⁷³ There may be other jobs for the road construction and maintenance, but those are not discussed in the SRK report.

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CONCLUSIONS

Based on this analysis, stakeholders should treat cost, profitability and mineral estimates from Chieftain Metals regarding the Tulsequah Chief Project with scepticism. Due to the lack of a formal feasibility study, with independent verification of mineral reserves and more comprehensive information, there can be little certainty about the economics of the Tulsequah Chief mine or verification of Chieftain's claims. The history of increasing costs, permitting delays, unmet commitments and overly optimistic projections relative to proposed Tulsequah mining should also be noted by observers.

Stakeholders should be aware of the following major risks, uncertainties and information gaps:

- Some key officials of Chieftain Metals have shown questionable judgment in the past: losing a significant amount of money in asset-backed commercial paper investments,⁷⁴ making commitments they could not meet to regulators and affected communities, and then – using the limited liability provisions of their companies – these executives have been able to emerge unscathed while their associated companies declared bankruptcy.
- There has not been a feasibility study for the mine with road access since 1995 that indicated the Tulsequah Chief project is economically viable. Two of the studies were stopped by the mining company when they did not show positive results. The latest partial feasibility study – by Global Management Partners in 2008 – indicated capital costs of over \$500 million.
- This is a polymetallic mine, and the commodity prices for all the minerals have to be economic for the mine to succeed. At this point, zinc in particular is stalled at below \$0.90 US. Many analysts consider gold and silver prices to be a bubble. The arsenic and antimony contaminants in the ore may make the product difficult to sell, even to China.
- Potential environmental liabilities, such as inadequate reclamation bonding, avalanche risk, failure of the tailings facility with corresponding damage to the Alaska fishery and accidents on the access road that result in toxic spills, could increase the costs of the project.
- Road costs, including reclamation, are likely underestimated; and
- Chieftain does not have the SUP or amended Environmental Assessment certificate to allow road construction. The Taku River Tlingit have not approved any road route.

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ENDNOTES

- ¹ Bankruptcy documents at www.kpmg.ca/en/ms/cl/redcorp/. Petition to the Court by Redcorp Ventures Ltd. and Redfern Resources Ltd., to the Supreme Court of British Columbia, No. S091670, March 4, 2009; and Affidavit of Maureen Bergh, Supreme Court of British Columbia, September 17, 2009.
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- ⁶ Redcorp Ventures news release, January 29, 2007. <http://www.marketwire.com/press-release/redcorp-announces-redferns-tulsequah-project-feasibility-study-results-tsx-rdv-632747.htm>
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- ¹³ Corporate filings of SRA/Portex on www.sedar.com.
- ¹⁴ www.chieftainmetals.com and <http://www.portexminerals.com>
- ¹⁵ www.chieftainmetals.com
- ¹⁶ Chieftain corporate filings at <http://www.sedar.com/DisplayCompanyDocuments.do?lang=EN&issuerNo=00030715>.
- ¹⁷ A list of these vendor payables as of 2009 can be found at <http://www.kpmg.com/Ca/en/WhatWeDo/Advisory/TransactionRestructuring/CreditorlinkSites/Redcorp/Documents/G%20-%20List%20of%20Unsecured%20Creditors%20%28at%20March%204%29.pdf>.
- ¹⁸ See footnotes 1 and 2. In one example, Sundial Marine Construction and Repair, the company that contracted to build “the Monty” for Redcorp, an innovative hover barge considered to be the world’s largest, shut down in May 2011. At bankruptcy, Redcorp owed the company over \$2 million, secured by a lien on the barge. The court agreed to sell it for less than the value of the lien, and the unfinished barge was not sold by the receiver’s agent (Marcon) until November 2011. Whidbey Examiner article dated November 17, 2011.
- ¹⁹ NI 43-101 provides standards for the classification of mineral resource and mineral reserve estimates into various categories, based on rules developed by the Canadian Institute of Metallurgy. The category to which a resource or reserve estimate is assigned depends on the level of confidence in the general geological information available about the deposit; the quality and quantity of data available on the deposit; the level of detail of the technical and economic information generated about the deposit, and the interpretation of the data and information.
- ²⁰ Technical Report on the Tulsequah Chief Property, Wardrop, March 2007, p. 1-9. <http://www.sedar.com/DisplayCompanyDocuments.do?lang=EN&issuerNo=00014660>
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RISK ANALYSIS

OF THE CHIEFTAIN METALS TULSEQUAH CHIEF MINE PROPOSAL

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- ²⁵ Redcorp Ventures, News Release, August 2008. <http://www.marketwire.com/press-release/Redcorp-Ventures-Ltd-Financial-Operating-Highlights-Second-Quarter-Ended-June-30-2008-888489.htm>
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- ²⁸ <http://www.chieftainmetals.com/presentations/chieftain-metals-corporate-presentation-feb-1-2012.pdf>
- ²⁹ 1998 Report and Recommendations on the Tulsequah Chief Project Committee with Respect to a Decision on a Project Approval Certificate by the Minister of Environment, Lands and Parks and the Minister of Energy and Mines and Minister Responsible for Northern Development, and Fulfilling the Requirements of a Screening Report Pursuant to the Canadian Environmental Assessment Act, p. 14.
- ³⁰ Big Bull Project, Tulsequah Chief Property, Technical Report, Northern British Columbia, SRK Consulting, November 8, 2010. <http://www.sedar.com/DisplayCompanyDocuments.do?lang=EN&issuerNo=00030715>
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- ³⁵ Redcorp, Material Change Report June 12, 2008. <http://www.sedar.com/DisplayCompanyDocuments.do?lang=EN&issuerNo=00014660>
- ³⁶ <http://www.chieftainmetals.com/press-releases/2011-dec-22-chieftain-metals-royal-gold.pdf>; <http://www.chieftainmetals.com/presentations/chieftain-metals-corporate-presentation-feb-1-2012.pdf>; Chieftain Metals financial statements and Management's Discussion and Analysis as of December 31, 2011, and Purchase and Sale Agreement By and Between Chieftain Metals, Inc. and Rgld Gold AG dated December 22, 2011 at www.sedar.com.
- ³⁷ Corporate filings of Inca Pacific Resources at www.sedar.com.
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- ³⁹ Wardrop, March 2007, pp. 28-3 and 28-4.
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- ⁴⁴ http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_doc_list_72_k_aro.html
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OF THE CHIEFTAIN METALS TULSEQUAH CHIEF MINE PROPOSAL

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6 June 2012

Environment Canada
Environmental Enforcement Division
Yukon Enforcement Section
Pacific and Yukon Region
91782 Alaska Highway
Whitehorse, YT

ATTN: Mr Wade Comin, Inspector

Dear Mr Comin,

RE: Tulsequah Chief Mine Interim Water Treatment Plant

Further to our correspondence of 25 May 2012, in which we indicated our intention to undertake a comprehensive review of site activities, we hereby provide a summary of proposed site activities going forward.

We wish to advise you of our intention to curtail activities at the Interim Water Treatment Plant and enter into a period of non-compliance with the conditions of Waste Water Discharge Permit #105719. We anticipate an initial period of limited operations while plant testing and optimisation activities are underway, with an increase to a higher operating level when project financing is secured and the Tulsequah project gets underway.

Chieftain Metals Inc. (Chieftain) has demonstrated its commitment to managing the environmental legacy of historical activities at the Tulsequah Chief Mine. Since purchasing the water treatment plant from Redfern receivers in 2010, Chieftain has spent approximately \$9 million to construct and operate the plant. During this time, Chieftain has commissioned and operated the plant pursuant to its water quality discharge permit conditions, and discharged water quality results have met all permit requirements. However, the plant operation has not met expectations when compared to its design, and Chieftain is currently reviewing all plant and site activities with a view to identifying and resolving the root causes of these issues.

This letter describes the analysis and outcomes of Chieftain's IWTP operations review and provides an action plan for plant optimization and site management over the coming months.

PROJECT SUMMARY

The Tulsequah Project covers two previously producing underground mines, the Tulsequah Chief and Big Bull Deposits, and is currently in an advanced stage of development. Chieftain's principal focus is to develop an underground mine at the Tulsequah Chief Deposit. Mine construction is slated to commence in 2013 following an updated economic feasibility study review. The industry is experiencing a great many cost escalation elements and accordingly we are currently reviewing project economics to determine optimal design and construction processes.

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LEGACY ISSUES

Historic mining activities at the Tulsequah Chief Mine have caused acid mine drainage legacy issues and Chieftain agreed in the acquisition of Tulsequah Chief that these issues would be addressed. We have met the requirement as the Tulsequah Chief Interim Water Treatment Plant (IWTP) was constructed in Fall 2011 and commissioned in November 2011. The British Columbia Ministry of Environment issued Waste Water Discharge Permit #105719 under the provisions of the *Environmental Management Act* on 4 April 2012. This permit authorised Chieftain Metals, Inc. (Chieftain) to discharge treated water to the Tulsequah River, subject to conditions described in the permit.

INTERIM WATER TREATMENT PLANT OPERATIONS REVIEW

The IWTP has been operating since January and discharging treated effluent to the Tulsequah River. Plant discharges have met permit water quality conditions. However, reagent consumption rates, sludge production volumes and plant operating costs have greatly exceeded the engineered design parameters that Chieftain agreed to. Chieftain has by necessity conducted a comprehensive review of the operation and management of the IWTP as our budget cannot carry the costs while the mine project is still under design. The IWTP was designed as an interim measure to address the environmental legacy of historic mining activities not of Chieftain's creation and from which no benefit accrued to Chieftain. The only long-term AMD solution is to develop, operate and ultimately close the mine in an environmentally responsible manner which addresses all AMD issues. Chieftain requires the time to properly arrange mine financing construction before it can continue the burden of treating water associated with previous mining activities.

Reagent Consumption

Actual reagent consumption rates of 0.2kg of ferric chloride and 0.07 kg of lime per cubic metre of effluent have significantly exceeded design, which forecast reagent consumption rates of 0.03 and 0.16 kg/m³ respectively. Chieftain has significantly improved reagent consumption rates over the last month, however, consumption rates are still well in excess of design.

Effluent Volumes

The 2012 Permit Application submitted by Chieftain to the Ministry of Environment contemplated an average treatment volume of 40m³/hr, or 960m³/day. Current treatment volumes have averaged 53m³/hr or 1,270m³/day, 35% greater than the yearly average during the freshet period. The average for the year appears to be in line with estimates.

Sludge Production

The current sludge production rate at the water treatment plant is outstripping capacity to manage and transport it. The original design contemplated 2 WTP operators and sludge production at a rate of 1m³ sludge per 720m³ of treated ARD. Current plant parameters produce a fluffy, low-density, low percentage solids content sludge. In the time period from 1 March 2012 to 31 May 2012, sludge was being produced at an average rate of 20L sludge/m³ effluent, or 1,200% of design output. Sludge management issues are driving many costly activities on site and at this stage additional personnel are required to manage the sludge output. This has placed unsustainable pressure on site resources, and operating costs now exceed design by in excess of 300%. The bulk of these costs are for IWTP support, including the requirement for additional manpower to remove sludge from the plant and the resources required to support a larger than anticipated workforce. This by extension

is placing untenable pressure on operation and corporate finances, and exceeding the site workforce capabilities.

Continued sludge production at this rate cannot be sustained, in particular through the winter months where constant road maintenance will be required to facilitate hauling sludge 6km to the sludge storage pit. There have been no safety incidents to date, but the combination of sub-optimal plant operation, the condition of the site fleet and the relative inexperience of operators indicates significant cause for concern. Employee safety is also of primary concern at this time and the current state of plant operations necessitates a substantive change in site activities.

Cost Implications

Of equal importance is the effect of excessive and unsustainable costs on Chieftain's resources. Chieftain is a single asset company and project viability is dependent upon careful fiscal management. To this end, planned activities will specifically include a first-principles review of the plant engineering and process, a comprehensive safety audit and development and implementation of safe and efficient practices for management of Interim Water Treatment Plant.

COST REVIEW

Table 1 provides a comparison between original forecast, current and targeted operating costs.

Area	Item	2009 Original Forecast		2012 Current		CMI Targeted	
		Daily	Monthly	Daily	Monthly	Daily	Monthly
Staffing	On site	2	2	8	8	4	4
	Sludge produced (av. Daily volume) (m ³)	1	31	15	450	2-6	60 - 180
		Monthly	Annual	Monthly	Annual	Monthly	Annual
	TOTAL	\$89,756	\$1,077,069	\$362,734	\$4,352,808	\$185,000	\$2,220,000

Table 1 – Cost Comparison Table

ACTIONS UNDERTAKEN TO DATE

Actions undertaken to date include:

- A comprehensive review of IWTP process inputs and outputs;
- A sludge removal campaign;
- Options assessment and internal consultation program;
- Revision of site operating plans and forecasts; and
- Commencement of a mitigation and site optimization earthworks program.

These activities are in various stages of advancement and, while insufficient data is available at this time to draw conclusions, revisions to the plant process have yielding promising results.

OPTIONS ASSESSMENT

Prior to the development of this Action Plan, four options were evaluated. These were:

- Status Quo (Current operation and practices)
- Operation with a reduced workforce
- Treatment of only the most impacted water (i.e., 5200 outflows) at only key sensitive times.
- Curtailement of operations for plant optimization.

For all options, plant optimization has priority. The intention of any change in site practices will be to protect employee safety, increase plant efficiency, manage overheads and reduce costs to meet revised expectations. In all cases, any curtailment of activities would be on a temporary basis while the plant process is optimized. The plant will be restarted as soon as process optimisation is complete and project funding is secured.

PLANNED ACTIVITIES

Chieftain has prepared a range of treatment options and proposes the following actions :

1. Immediate reduction of site workforce to meet revised operating expectations

Chieftain has commenced retrenchments and is transitioning to a site-operating model of 4 employees on site at any time. This is in line with the proposed operating expectations and is anticipated to continue after full-time water treatment activities resume. The workforce will comprise one manager or his delegate, two water treatment plant operators and a mechanic who can alternatively operate the IWTP.

2. Staged shut-down of plant operations

Planned and orderly shutdown of plant activities with a view to re-starting the plant smoothly and efficiently.

3. Undertake plant optimization studies and trial changes to the site operating system

These activities have commenced, and early results indicate progress. Optimization studies and associated plant testing will be actively pursued over the coming months.

4. Apply for a permit amendment to allow deposition of sludge in the area of the proposed Pyrite Pond and PAG storage facility

An integral part of the proposed IWTP Operating Plan is permitting an alternative sludge disposal site. A suitable facility exists at Rogers Flat, 1km from the IWTP, and Chieftain intends to apply for a permit to re-designate this facility for temporary sludge deposition. This will reduce haul times during periods of high sludge production, reduce road maintenance, in particular snow removal in the winter, between the IWTP and the Airstrip Sludge Storage Pit and relieve the pressure it places on employees and equipment by hauling from the IWTP to the Airstrip Sludge Pit (i.e., a 12 kilometer round trip). Monitoring wells are already present at this location and baseline data are available. It is anticipated that the Airstrip Sludge Pond will continue to be used during summer, when ease of sludge hauling is available. The use of the Pyrite/PAG area would cease when site construction would commence and full support is available for IWTP operations.

POTENTIAL MITIGATION OPTIONS

Chieftain is considering a range of mitigation options, any or all of which may be adopted over the coming months. At a minimum, Chieftain will investigate the following actions to mitigate potential losses and impacts and implement those deemed suitable:

- ***Review IWTP Operating Plan***

Issue a revised IWTP Operating Plan that addresses all management issues and concerns, and ensures the safe and efficient operation of the IWTP going forward.

- ***Conduct a catchment assessment***

Conduct a catchment assessment to identify additional opportunities to divert good quality water around the acid water catchment. As in-catchment Spring freshet flows have now ceased, precipitation runoff is the only source of freshwater inflows into the IWTP circuit. Diverting runoff around exposed PAG material at the Tulsequah Chief will reduce metals loading and total treatment volumes.

- ***Enhance acid mine water pumping configuration***

Install a second pipeline from Pump house to Plant to accommodate increased flow volumes and provide the capacity to return effluent to the site containment system.

- ***Reinforce IWTP Sludge Storage Pond***

Seal the IWTP Sludge Pond to prevent future seepage losses and make pond available for winter/short term storage.

- ***Review IWTP remote monitoring system***

Investigate options for improving the IWTP telemetry system, with emphasis on automating the water treatment system and increasing plant operating efficiency. Engage a Water Treatment Plant telemetry programmer to improve the process monitoring system.

- ***Maintain 5400 Portal diversion***

Continue to pipe the 5400 Portal discharge across the waste dump to minimize flushing of the waste rock and discharge 5400 Portal water into the Exfiltration Pond. This will necessitate reconfiguring the 5400 line above the Exfiltration Pond.

- ***Maintain 5200 Portal diversion***

Continue to pipe the 5200 Portal discharge across the waste dump to minimize flushing of the waste rock and discharge the 5200 Portal water into the Exfiltration Pond. This will necessitate reconfiguring the 5200 line. At present, any overflow from 5200 goes down the ditch into the Exfiltration Pond.

- ***Exfiltration Pond improvements***

If practical, re-excavate and reinstall filter fabric on the Exfiltration Pond berms to help lower the elevation at which the discharge enters the river and to provide additional capacity within the pond to manage peak flows.

- ***Continue operations at a reduced flow rate***

When possible run the treatment plant at a reduced flow rate. Running the treatment plant by directing flows directly to the sump pump and isolating the sump from the Site Collection Pond, would provide better conditions for sludge settling and consolidation, while still removing the majority of the contaminant load from the site discharges. Water that accumulates in the pond (site runoff or filter backwash water) could be pumped back to the Exfiltration Pond for discharge.

- ***Adjust plant turbidity parameters***

When the treatment plant is running, disable the automatic rejection and recirculation of high turbidity water (e.g., filter backwash) and allow this water to go to the river via the diffuser. Available water quality data indicates that TSS levels in the river downstream of the outfall are likely to be much higher than the permit limits for the next few months. The timing of the increased turbidity can be based on direct observation of the water in the river at the diffuser and W46. Quantification of the turbidity change can be done using the hand held turbidity meter and confirmatory TSS analyses on regular sampling. This would reduce treatment volumes by up to 3000 m³/month.

- ***Timed water treatment campaigns***

Limit the timeline for discharges to coincide with higher flows and higher turbidity in the Tulsequah - i.e., early June to mid-October. Ensure the treatment plant is fully operational during the winter low flow months (February and March) when redds are hatching and vulnerable juvenile fish may be present in the vicinity and downstream of the mine site. Limit the timeline for plant shutdown, such that potential impacts on spawning runs for key species (e.g., Coho and Sockeye salmon) are minimized. This applies primarily to the fish that would use the left bank tributaries of Shazah and Chasm Creeks. Right bank spawning fish would not be affected by untreated discharges.

- ***Weekly Monitoring Program***

Implement weekly monitoring at W46 (upstream of the Exfiltration Pond) and W51 (downstream of the Exfiltration Pond but upstream of Rogers Ck), to monitor total loading from the untreated discharge, commencing one week prior to plant shut down and continuing until 1 week following full resumption of plant operations. Monthly water sampling activities will be continued at W10 and W32, respectively upstream and downstream of the project area.

- ***Apply for permit amendments to allow for deposition of sludge in to the Pyrite Pond area***

This will reduce haul times during periods of high sludge production, while not requiring a high solids content in the thickener underflow. Furthermore, this will remove the need for road maintenance between the IWTP and the Airstrip Sludge Storage Pit. Monitoring wells are already present at this location and baseline data are available. It is anticipated that the Airstrip Sludge Pond will continue to be used during summer, when sludge hauling capacity is available.

- **Investigate sludge thickening options**

Options currently under investigation include hydrocycloning or centrifugation. Chieftain is still waiting for a final quote from a supplier with specifics on power draw, moisture content and pricing.

Chieftain cannot fund all these reviews until progress is made on its financing.

- **Site Survey**

A site survey of potential surface water transfer options has been completed and an investigation of passive water treatment options is underway.

FURTHER MITIGATION OPTIONS

The following options are being assessed to run in parallel with planned activities:

- Selective treatment of the most impacted water and diversion of better quality water to passive treatment systems;
- Site energy efficiency measures; and
- Immediate cost saving measures in other areas of Chieftain's business (e.g., reduced workforce, camp relocation, revised schedules, power generation alternatives).

A decision regarding the effectiveness and appropriateness of these activities will be made once all information has been reviewed.

FOLLOW-UP ACTIONS

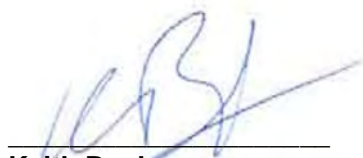
Chieftain wishes to maintain an open dialogue with regulators over the coming months as IWTP optimization activities are undertaken.

In conclusion we cannot continue the IWTP operations and require your understanding to allow adequate time to review the possible modifications discussed. We welcome the opportunity to discuss the plan at a suitable time.

We will contact you shortly to discuss the contents of this letter. Please do not hesitate to contact Keith Boyle of our offices by email at keith.boyle@chieftainmetals.com or by telephone at (416) 479-5410 should you have any questions regarding this matter.

Yours faithfully,

CHIEFTAIN METALS INC.



Keith Boyle
Chief Operating Officer

Cc Messrs. James Cuell and Ian Sharpe, Province of British Columbia

Victor Wypriksy, President & CEO