



Ministry of Environment
Inspection Record

Environmental
 Protection
 Division

Inspection Number: 30389		Inspection Status: FINAL	
EP System: <u>AMS</u>		Inspection Date: 2016-09-26	
EP System Number: 105719		EP System Status: <u>Active</u>	
Region: <u>Skeena</u>		Office: <u>Smithers</u>	
Trigger: <u>Planned</u>		Incidents of Non-Compliance Observed: <u>Yes</u>	
Non-Compliance Decision Matrix Level: <u>Level 3</u>		Non-Compliance Decision Matrix Category: <u>Category B</u>	
Inspector Name(s): Neil Bailey Dave Hebert		CPIX: <u>0 to 1 = Low</u>	
Audit: <input type="text"/>		Total Non-Compliance(s): 1	
Regulated Party: CHIEFTAIN METALS INC.			
Regulated Party Contact(s): Keith Boyle			
Legal Address: Chieftain Metals Inc. c/o Keith Boyle P.Eng., Chief Operating Officer, 2 Bloor Street W, Suite 2510, Toronto ON, M5W 3E2			
Phone No: (604)836-7559		Fax No: (416)479-5420	
Contact Email: boyle.mining@outlook.com			
Location Description or Site Address: Tulsequah Chief Mine Site mine located approximately 100 kilometers south of Atlin, BC and 64 kilometers northeast of Juneau, Alaska on the east bank of Tulsequah River in northwest British Columbia.			
Latitude: 58.71666 N		Longitude: 133.5833 W	
Receiving Environment(s): <u>Surfacewater</u>			

Summary

MONITORING AND REPORTING REQUIREMENTS	
Inspection Period: From: 2016-09-26 To: 2016-09-26	
Requirement Source: <u>Permit</u>	
Activity: <u>On Site</u>	Waste Type: <u>Effluent</u>
Inspection Summary: <p>On September 26, 2016 at approximately 10:30 am Officers Bailey and Hebert along with Diane Howe of the Ministry of Energy and Mines (MEM), Doug Flynn (MEM), Rory Cumming (MEM) and Trevor Williams, Land Guardian for the Taku River Tlingit (TRT) First Nation, conducted a planned inspection of Chieftain Metals Inc.'s Tulsequah Chief mine facility to verify compliance with its effluent discharge permit 105719 (Permit) under the Environmental Management Act (EMA).</p> <p>The Permit was issued on April 27, 2012 and most recently amended on September 12, 2016.</p> <p>The following non-compliance was noted during this inspection: - A non-compliance with section 2.1 - Bypasses as approval for the bypass of the water treatment plant has not been given and the discharge does not meet the conditions specified in Section 3.6 for an approved bypass of neutral pH water.</p> <p>A acute toxicity (Rainbow Trout 96hr LC50) sample was taken from the exfiltration pond outflow (EMS ID E304170). The effluent was found to be acutely toxic, with a 96 hr LC50 estimated to be less than 6.25 percent (v/v).</p> <p>This non-compliance poses a potential moderate, temporary impact to the environment, and has been assessed as a Level 3 on the Levels of Escalating Environmental, Human Health or Safety Impacts on the Non-compliance Decision Matrix. The Category of Likelihood of Compliance was assessed as Category B - as indications of future and ongoing compliance are uncertain.</p> <p>As a result of the above noted non-compliance and the potential for a moderate, temporary impact to the environment, this Inspection Record is being referred to the COS for investigation.</p>	Response: <u>Investigation</u>
ACTIONS REQUIRED BY REGULATED PARTY: 	
ADDITIONAL COMMENTS: Compliance History:	

Advisory issued October 15, 2015 for an unauthorized bypass of the authorized works (IR# 23226).

Advisory issued January 16, 2013 requiring permittee to follow monitoring requirements laid out in the Discharge and Receiving Environment Authorization Amendment - specifically the weekly metals sampling required at W10 and W32 (IR# 7795).

Notice of non-compliance issued December 6, 2012 for sludge pond seep (IR# 7973).

Warning issued July 24, 2012 as Written Approval for the bypass of the water treatment plant was not obtained and the discharge did not meet the conditions specified in Section 3.6. As a result, Chieftain Metals Inc. was in violation of Section 2.1 ___Bypasses___ of Permit 105719 (IR# 3204).

Advisory issued May 11, 2012 for accidental release of mine water (IR# 1991).

Compliance Summary	In	Out	N/A	N/D
Operations	0	1	0	0
Reporting	1	0	0	0
Monitoring	0	0	1	1

Inspection Details

Requirement Type: <u>Monitoring</u>
Requirement Description: Section 1.1.3 Interim Acid Water Treatment Plant (IAWTP) discharge characteristics: Maximum allowable concentration in any grab sample 0.5 mg/L for Aluminum(dissolved), 0.05 mg/L for Arsenic(dissolved), Copper(dissolved) and Lead(dissolved) 0.2 mg/L for Zinc(dissolved) 30 mg/L for TSS, 6.0-9.5 pH units 50 Percent Survival in 100 Percent Concentration, Minimum - Rainbow Trout 96 hr Acute Lethality, Single Concentration These limits apply to treated effluent discharge from the IAWTP and the Neutral pH Mine Water (NMW).
Details/Findings: The IAWTP has been shut down since June 22, 2012. There was no discharge of treated mine effluent from the plant at the time of the inspection.
Compliance: <u>Not Applicable</u>
Requirement Type: <u>Operations</u>
Requirement Description: Section 2.1 Bypasses Any bypass of the authorized works is prohibited unless the approval of the Director is obtained and confirmed in writing.
Details/Findings:

The authorized works include, but are not limited to, a water collection and conveyance system, pumps, an acid water treatment plant which includes a neutralization chamber, rapid mix tank, flocculent tank, inclined plate-type separator/thickener, filters and holding tanks, a discharge line, outfall to the Tulsequah River, and related appurtenances as listed in section 1.1.5.

Approval for the bypass of the water treatment plant has not been given and the discharge does not meet the conditions specified in Section 3.6 approving a bypass for neutral pH water. As a result, Chieftain Metals Inc. is in non-compliance with Section 2.1 Bypasses.

A acute toxicity (Rainbow Trout 96hr LC50) sample was taken from the exfiltration pond outflow (EMS ID E304170). The effluent was found to be acutely toxic, with a 96 hr LC50 estimated to be less than 6.25 percent (v/v).

Compliance: Out

Requirement Type: Monitoring

Requirement Description:

4.1 Discharge and Receiving Environment Water Monitoring Program

The Permittee must undertake the following meteorological, hydrometric and water quality measurements, samples and analyses:

Location	Frequency
Shazah Camp	April, August and October - download dataloggers; replenish glycol
Chasm Creek and Creek	April or May, August and October _ download dataloggers Shazah (including barologger), record staff gauge reading; take manual flow measurements
NMW Discharge E277509	April/May/August/October: Field parameters, flow, Discharge general chemistry total and dissolved metals
SE-2	April/May/August/October: total and dissolved metals, general chemistry
P-07-03 MW11-3 and MW11-5 to MW11-7	Download datalogger and record water levels at least once per year
MW11-9 to -10	Record water levels at least once per year
SP11-01 to -03 E287309 E287310 E287311	April/May/August/October - water levels; April and October: groundwater field parameters, dissolved metals, general chemistry
W10 -E272544	April/May/August/October: field parameters, total and dissolved metals, general chemistry
W32 E272546	April/May/August/October (in duplicate): field parameters total and dissolved metals, general chemistry
W51 E272547	April/May/August/October: field parameters, total and dissolved metals,
Borrow Pit	April, measure Dissolved Oxygen if ice cover present

Taku River downstream Once per year in October: field parameters, total and dissolved metals, general of the Tulsequah River chemistry confluence

Details/Findings:

Section 4 - Monitoring Requirements of Permit 105719 was amended on September 12, 2016. Compliance with this requirement was not determined as part of this inspection.

Compliance: Not Determined

Requirement Type: Reporting

Requirement Description:

5.7 Annual Report

The Permittee shall submit an annual report by March 31st of each year, with the first report submitted on March 31, 2013.

Details/Findings:

The 2015 Annual Monitoring Report was submitted on March 30, 2016.

Compliance: In

Were the following collected during inspection:

Samples? Photos? EMS Number

Other (please specify)

Is the Inspection related to an EA Project? EA Project Certificate Number:

INSPECTION CONDUCTED BY:

<i>Signature</i>	<i>Date Signed</i>
Neil Bailey	2016-10-24

ENCLOSURE(S) TO REGULATED PARTY & DESCRIPTION:

2016-09-26 Tulsequah Chief Photo Log

CVIS Archives

REGULATORY CONSIDERATIONS:

DISCLAIMER:

Please note that sections of the permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original permit, regulation or code of practice.

To see the most up to date version of regulations and codes of practices please visit: <http://www.bclaws.ca/>

If you require a copy of the original permit, please contact the inspector noted on this inspection record or visit: <http://www2.gov.bc.ca/gov/topic.page?id=DF89089126D042FD96DF5D8C1D8B1E41&title=Publicly%20Viewable%20Authorizations>

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the authorization therefore compliance is noted only for the requirements or conditions listed in the inspection record.

Ministry of Environment	Skeena	Mailing Address:	Phone: (250) 847-7260
	Region	Bag 5000, 3726 Alfred St	Fax: (250) 847-7591
	Environmental Protection Division	Smithers, BC V0J 2N0	Website: http://www.gov.bc.ca/env