BRITISH COLUMBIA

GENERAL INSPECTION REPORT

ID: 265181
X-Ref: IDIRJKSMITH 2012/03/26 07:00:00

A

Licensee/ Tenure Holder: THOMPSON CREEK MINING LTD.
BAG 4001
FRASER LAKE BC V0J3A0

Tenure (type/no): /

Site ID: SCR EAO
Inspection Date (yyyy/mm/dd 24:mm): 2012/03/26 7:00
Regional Inspection: ☐
Location (optional): MT MILLIGAN

Operator/Contractor: THOMPSON CREEK MINING/ SCOTT M
In Attendance: James Smith/ Tony Carrol/ Chris Parks/ Clayton Gross/ Julie Orban/ Scott Morrison/ Andrew Chewter

Compliance Summary Comments:

Inspection of the Thompson Creek/ Mt Milligan Project was conducted by the EAO staff as well as FLNRO C&E staff to inspect for compliance with Mt Milligan. EA certificate and EMP's and CEMP's.Plans used to assist in the inspection criteria were the Table of Commitments, the EMP, and the CEMP as well as spill and prevention and contingency plan, sediment and erosion control plans.

6.34 Archaeological and cultural heritage resource management plan main objectives are identify, record and assess any of these features with-in or adjacent to the project. There was no other features found on location other than the pre-identified j-3/GgRs-5 which had low impact and required no mitigation. The proponent has done a Archaeological Impact Assessment pre construction 2007 and has managed this requirement.

6.3.3 Air Quality Management Plan has been developed to protect and manage air quality in the area during all stages of the mines life. It establishes measurable goals and targets as well as the roles and responsibilities of meeting this goal. At the time of inspection all goals contained in here could not be measured as all the phases were not active. The plans and roles and responsibilities were put into place as well as the early stages of implementation were installed. Some of these implementation included using low sulphur diesel, a no idle rule for all vehicles, conservation of power and lighting in camp. One control measure not scene at the site mention was the use of vapour recovery units they were not installed at the time of inspection.

6.3.7.4 Sediment and Erosion Control. These measures will be used during the construction and operation of the mine site and are designed to avoid and minimize erosion of soils and sediment movement from entering water bodies. During the time of inspection most of the ground was still snow covered but the steeper slopes were to be re-vegetated to control run off and erosion as well as use of buffers, rip-rap, and materials. The entire area captures run- off water and is contained by a man mad berm which will be used to run the mine once in construction phase of the mine. At the time of the inspection it appeared that this objective was being met.

6.38 Hazardous Materials Management Plan. This commitment first identifies potentially hazardous substances and then identifies proper transport, storage and uses and ultimate disposal system to be used. There is a list of substances that has been developed by the proponent and the method of storage and then disposal of each substance. This list has been distributed to the contractors and is to be used. This commitment was inspected in the field and for most part was being followed, most if not all oils and liquids were being stored and disposed of properly. There was a few small issues seen onsite were the mixing of materials were not being disposed of properly, these items were being thrown in general bins that were marked for food waste and in them was waste of metal, wood waste, a few plastics and a tire as well as a air filter all in the same waste bin. Different methods of disposal are mentioned for these substances and required to be sorted out from each other, this was a minor non-compliance.

see additional pages

E

Inspector: James Smith
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Andrew Chewter Thompson Creek
Signature: X
(Signing does not imply agreement with findings)

BRITISH COLUMBIA

GENERAL INSPECTION REPORT

ID: 265181

X-Ref: IDIR\JKSMITH 2012/03/26 07:00:00

A

Licensee/ Tenure Holder: THOMPSON CREEK MINING LTD.

BAG 4001
FRASER LAKE BC V0J3A0

Tenure (type/no): /

Site ID: SCR EAO

Inspection Date (yyyy/mm/dd 24:mm): 2012/03/26 7:00

Regional Inspection: ☐

Location (optional): MT MILLIGAN

Operator/Contractor: THOMPSON CREEK MINING/ SCOTT M

In Attendance: James Smith/ Tony Carrol/ Chris Parks/ Clayton Gross/ Julie Orban/ Scott Morrison/ Andrew Chewter

Inspection Method | **Area Inspected**

B

Ocular: ☒
Recce: ☐
Detailed Survey: ☐
Admin/Office: ☐

Area Inspected:
Location Inspected: fueling areas, laydown yard, camp areas and parking, water containement burms, roads creeks and crossings.

C

Site or Activity Status:

Thompson Creek is active on the construction portion of the mine development, the camp construction is complete but the mine is active on all other phases of construction.

D

Alleged Non-Compliance: ☐
Further Research: ☐

E

Inspector: James Smith
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Andrew Chewter Thompson Creek
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☐ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☐ Fax: ☐ Mail: ☒ Hand Delivered: ☐

File # 23040-01/THOMPSON CREEK MINING LTD. File #

6.3.9 Landscape, Soils and Vegetation Management Plan. This commitment applies for all phases of the mines life and is in place to prevent adverse effects, and to determine the effectiveness of the mitigation measures. One of the main non-compliances on this project applies to this section which deals with the invasive plant commitment. The proponents committed that they would inspect and clean all their equipment before it leaves the point of origin, as well as additional cleaning as required, which will occur during the travel to the site.

Records were provided by the proponent of an inspection being conducted on the equipment coming on site, but the machines were being inspected for general condition, oil leaks and safety issues they did nothing to address the foreign plant seeds being possibly transported to the site. A step farther the proponents were not even aware of the invasive plants managed in British Columbia and could not list any of the invasive plants. I questioned a few of the sub contractors using equipment from different areas of the province and none of them were aware of the objective to look for foreign plants and seed sources. Mt Milligan staff could not provide me with inspection records at the time of inspection, 1 month later records were supplied.

6.3.5 Emergency Preparedness Plan. This commitment states that the emergency preparedness plan be updated to a full Mine Emergency Response Plan before the start of the construction phase of the project. A full version of the plan was requested at this meeting and the proponent was unable to provide one for over a month after the inspection date.

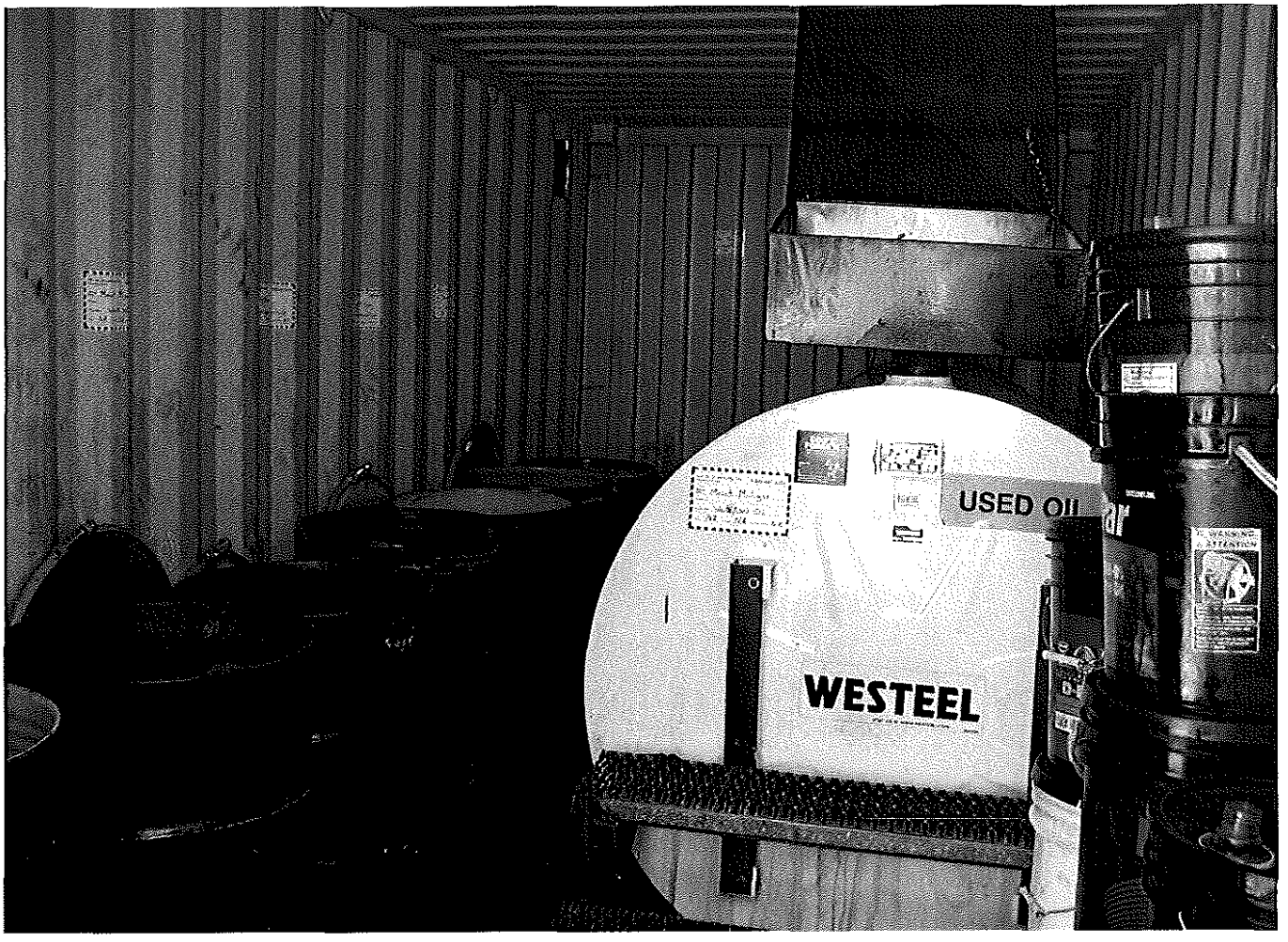
6.3.5.7 Spill Response Planning. One of the objectives of this commitment is to ensure if there is an accidental spill occurring that all available resources are used appropriately to minimize the extent and severity of the effect on the environment. In this area the proponent had lots of minor no compliances with this commitment. They listed of types of equipment that will have spill kits in the vehicles at all times, as well as a list of stationary area were kits will be stored.

• Pick-ups	30% had no kits or incomplete
• Dump trucks	25% had incomplete kits
• Commercial transport	100% had kits
• Excavation equipment	25% had missing or incomplete kits
• Pick-ups with mobile tanks	25% had incomplete kits
• Fuel truck	100% had spill kits

The spill kits in most part had been used to clean up minor spill and the used items not replaced. Spill kits general content must contain but not be limited to

- Oil absorbent pads
- Absorb socks
- Granular absorbent
- Protective equipment

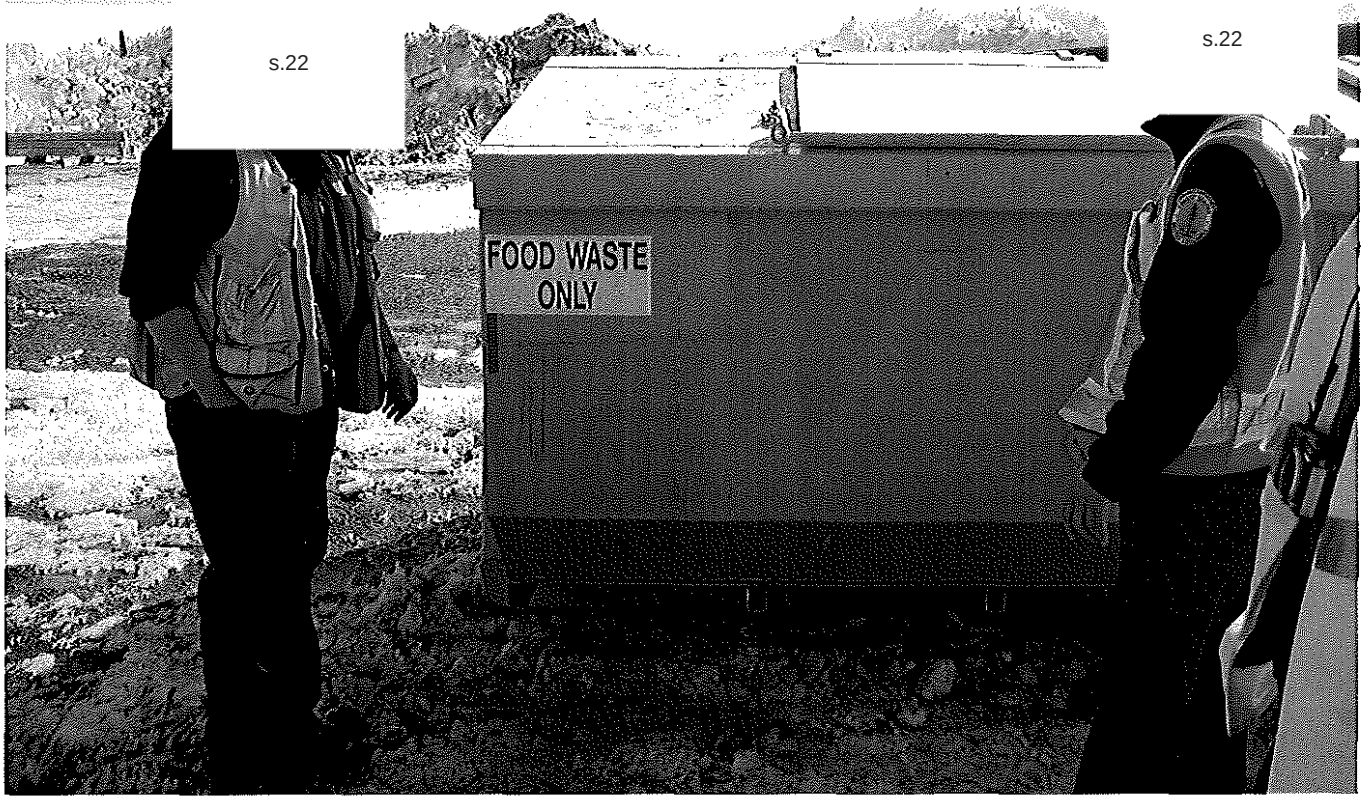
These kits are to be stored in a visible location, weather resistant container and regular inspections of the kits are to be preformed. In most parts the proponent was in none non-compliance with this as kits were hard to find if found at all by their staff, were left open and were wet and dirty and contaminated, and do to the fact so many kits were incomplete i am sure no regular inspection of the kits were done.


USED OIL
WESTEEL


VIKING

s.22

s.22



GENERAL INSPECTION REPORT

ID: 267080
X-Ref: IDIR\BEMATTIE 2012/09/11 00:00:00

A

Licensee/ Tenure Holder: ALTAGAS RENEWABLE ENERGY INC.
SUITE 2300 - 200 GRANVILLE SQUARE
PO BOX 24, 2300 - 200 GRANVILLE STREET
VANCOUVER BC V6C1S4

Operator/Contractor: Coast Mountain Hydro Corp.
In Attendance: Bernard Mattie - Field tour with several agency reps.

Tenure (type/no): S02/s25494

Site ID: SK CEP
Inspection Date (yyyy/mm/dd 24:mm): 2012/09/11 0:00
Regional Inspection: ☐
Location (optional): Mclymont access from Forest Kerr

Inspection Method		Area Inspected
B		
Ocular:	☒	**Area Inspected:**
Recce:	☐	**Location Inspected:** Constructed portion of Mclymont access road - Special Use Permit S25494
Detailed Survey:	☐	
Admin/Office:	☐	

C

Site or Activity Status:
Active

D

Alleged Non-Compliance: ☐
Further Research: ☐

Compliance Summary Comments:

No issues, temporary bridge installed as per design noted July 29th.

Berms are now broken (EAO requirement) and woody material is stoked for disposal.

Cross drainage not installed. To be installed prior to final completion. Currently low risk as per soil type (gravel).

There is a timing issue regarding completion of the main crossing (several factors contributing outside control of proponent).

The proponent will have continued need for temp. crossing. Circumstances reviewed with Company Environmental Monitor.

Low environmental risk as there are no fish values present or immediate water quality concerns.

I noted a concern for the structure if left in during spring freshet.

Timing for the next inspection will be in the spring pending any request for NRO C&E to attend.

E

Inspector: Bernard Mattie
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Loren Kelly
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☒ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☒ Fax: ☐ Mail: ☐ Hand Delivered: ☐

File # 19570-20/S25494 File #

GENERAL INSPECTION REPORT

ID: 267694
X-Ref: IDIR\HWALDON 2012/10/17 11:00:00

A

Licensee/ Tenure Holder: MINISTRY OF ENVIRONMENT
WATER MANAGEMENT DIVISION
ATTENTION AUBREY BROWN
PARLIMENT BLDGS. 765 BROUGHTON ST.
VICTORIA BC V8V1X5

Operator/Contractor: Capital Power Corporation
In Attendance: Hack Waldon, Benjamin Kelly, Bob McNeily

Tenure (type/no): /
Site ID: CEP_NER_EAOPROJECTS
Inspection Date (yyyy/mm/dd 24:mm): 2012/10/17 11:00
Regional Inspection: ☐
Location (optional): Quality Wind - Tumbler Ridge

Inspection Method		Area Inspected
B		
Ocular:	☒	**Area Inspected:**
Recce:	☐	**Location Inspected:**
Detailed Survey:	☐	
Admin/Office:	☐	

C

Site or Activity Status:
The site is still active with reclaimation activities, seeding activities, and turbine testing still underway.

D

Alleged Non-Compliance: ☐
Further Research: ☐

Compliance Summary Comments:
Various area were inspected during this inspection. Commitment 5.24, cross ditch installation, ditchblocks, and silt control measures were inspected. Commitment 5.3.3, proponent must maintain natural drainage patterns for FRPA classified waters. Commitment 6.9.4 sediment and erosion control plan. Results from this inspection are on the attached pdf documents.

E

Inspector: Hack Waldon
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Justin Carlson
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☐ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☒ Fax: ☐ Mail: ☐ Hand Delivered: ☐

File # 23040-13/ File #

GENERAL INSPECTION REPORT

ID: 268238

X-Ref: IDIR\DABROOKS 2012/10/17 00:00:00

A

Licensee/ Tenure Holder: KWAGIS POWER LIMITED PARTNERSHIP
SUITE 458 550 BURRARD STREET
BOX 51
VANCOUVER BC V6C2B5

Operator/Contractor: Peter Kiewit Contracting
In Attendance: Dacen Brooks
Patrick Walsh
Molly Cypher
Tim Huffman

Tenure (type/no): /

Site ID: WCR EAO
Inspection Date (yyyy/mm/dd 24:mm): 2012/10/17 0:00
Regional Inspection: ☐
Location (optional): Kokish River Hydroelectric Project

Inspection Method		Area Inspected
B		
Ocular:	☐	**Area Inspected:**
Recce:	☒	**Location Inspected:** Commitments 1, 7, 27, 28, 29, 52, and 76
Detailed Survey:	☐	
Admin/Office:	☐	

C

Site or Activity Status:
Active construction

D

Alleged Non-Compliance: ☐
Further Research: ☐

Compliance Summary Comments:
An inspection of the Kokish River Hydroelectric Project to ensure compliance with the EA certificate and associated commitments. Results are round ing the attachements tab.

E

Inspector: Dacen Brooks
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Justin Carlson
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☐ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☒ Fax: ☐ Mail: ☐ Hand Delivered: ☐

File # File #

Compliance Summary Comments

A follow-up inspection subsequent to the inspection dated July 18, 2012, was conducted of the Kokish River Hydroelectric Project to ensure compliance with the EA Certification and associated commitments. This inspection was conducted during three onsite visits to the construction area. These visits were September 13, 2012, September 28, 2012, and October 17, 2012. The inspection results are as follows:

Commitment # 1:

Erosion and sediment control and Groundwater monitoring plans have been created and implemented in the construction phase of the project. The erosion and sediment control work that has been done appears to be effective in minimizing sediment reaching the Kokish River and minimizing erosion on steep banks.

- September 13th site visit:
    - It was noted that there was a large amount of exposed soil but a great amount of work was being done to stabilize the exposed slopes to prevent sedimentation into the river. Discussions with the IEM onsite revealed that the IEM had given the proponent 1 week to take action on the amount of exposed soil as he was concerned about the possible impacts to the Kokish River. A professional geologist (Lars Uunilla) was contracted to make recommendations for the erosion and sediment control and these recommendations were actively being implemented. Some of the systems being employed include French drains, hydroseeding, ditch line sumps, and geotextile matting.
- September 28th site visit:
    - Sediment and erosion control works well under way with indications of hydroseeding seed germination success at the water intake site.
- October 17th site visit:
    - Inspected French drains, swales, and ditchline erosion control along penstock pipe route. Sumps built along ditches and ditches armoured with rock. Exposed soil slopes had been hydroseeded with some evidence of germination noted.
    - During blasting a rock knob broke off and a large amount of rock slid down slope to the Kokish River bank and into the wetted perimeter of the river. Witnesses stated that it was clean rock and no spike in sedimentation was observed in the river at the time. A biologist and blasting expert were brought to the scene and reports should be available from the proponent. The assessment indicated the impacts to fish habitat are minimal but there are some concerns that the narrowed river channel may cause increased flow velocities that may be un-passable by fish. Biologists report to follow.

See attached photos.

Constant monitoring of turbidity in the Kokish River is taking place and at no time has the turbidity of the river reached levels that would be lethal to fish. Turbidity test results are available on IEM weekly reports available on the FTP server site.

Commitment # 7

Construction of the temporary diversion channel complete and water diverted into it. Monitoring of fish in the diversion channel was active and fish had been observed. Kokish River turbidity was continuously monitored during the switch over and it did not reach levels that would be lethal to fish at any time. See attached photos.

Commitment # 27

During project construction the proponent must maintain a wheel washing facility. Wheel washing facility has been constricted and is ready for use. See attached photos.

Commitment # 28

Minimal noise has been noted at the campground.

Commitment # 29

The proponent has connected power to the grid at the powerhouse site.

Commitment # 52

Gates have been installed along Kokish Main road and East Fork road to prohibit public access into the construction site. The powerhouse site is mostly fenced but some of the fence had to be removed for the construction of the powerhouse. The powerhouse site is active 24 hours per day.

Commitment # 76

Weekly IEM reports have been made available to the Ministry of Forests, Lands and Natural Resource Operations on the Kokish River Hydroelectric Project FTP site.

Photo 1 - Exposed soil above temporary diversion channel

Photo 2 - exposed soil along Kokish Main road

Photo 3 - Rock armouring in stream channel

Photo 4 - Hydroseeding over geotextile mesh with compost mixture for slope stability and erosion control

Photo 5 - slope above temporary diversion channel September 28. Hydroseeding germination

Photo 6 - Hydroseeding along Kokish Main road

Photo 7 - Rock armouring of ditchline to minimize sedimentation

Photo 8 - October 17, ditchline armouring and sump for sediment settling prior to crossing road and flowing into Kokish River.

Photo 9 - hydroseeding of exposed slope and rock armouring of ditchline

Photo 10 - French drain outflow

Photo 11 - Blast rock that slid into Kokish River.

Photo 12 - Temporary diversion channel

Photo 13 - Wheel washing facility.

BRITISH COLUMBIA
Ministry of Forests, Lands and Natural Resource Operations
Natural Resource Officer
Compliance & Enforcement Branch

DAVID ZIMMERMAN
COMPLIANCE & ENFORCEMENT OFFICER
NORTHEAST REGION
RR1 MILE 301 ALASKA HIGHWAY
FORT NELSON BC V0C 1R0
TELEPHONE: (250) 774-5503
CELLULAR: (250) 321-1635
FACSIMILE: (250) 774-3704
EMAIL: David.Zimmerman@gov.bc.ca

Field Inspection for :

Environmental Assessment Office
PO Box 9426 stn Prov Govt
1st Floor, 836 Yates St.
Victoria, BC
V8W 9V1
Phone #250-387-0333
Fax # 250-356-7440

On October 19th, 2012 Natural Resource Officer David Zimmerman arrived at the Encana Cabin Gas Plant site located at 44km on the Komie Road NE district. (Location: 59°13'49.03"N 121°40'45.66"W). At approximately 08:30 hours the inspecting officer was admitted through the security gate and escorted to the emergency response and first aid station where a safety orientation was performed. Greg Sarabin a paramedic gave the orientation. In addition to the safety orientation, instructions for disposal of food waste and instructions for interaction with wild life were also given by Cabin Gas Plant staff.

Dan Toma Civil Engineer accompanied C&E staff David Zimmerman on a walking inspection of the site area outside of the Gas Plant operational structure's 1 & 2. In the office the following personnel were interviewed:

- Ron Langlois, EnCana Plant 1 site Co-site-Manager
- Doug Woodley, EnCana Plant 2 Co-Manager
- Don Mackenzie, EnCana Plant 1 Co-site-Manager
- Ron Hunter, EnCana HSE site Lead
- Barry Watson, EnCana common services coordinator
- Jamie Bell, EnCana EHS advisor.

The focus of the inspection was to observe on site those commitments found in the Environmental Protection Plan that would be within the scope of practice and competency of the inspector. The areas excluded from this inspected were the Plants 1 and 2. These areas were restricted for safety reasons and in also beyond the scope of the inspector. An inspection checklist was prepared coving commitments that the inspector felt comfortable to inspect. Some of the items covered by the checklist fell under the authorizations of the Natural Resource Office and these were inspected under those authorities.

(See Appendix VII for inspection checklist.)

Note on follow up inspections:

The site could be revisited to look at the drainage system along the Komie road in order to confirm that the drainage system is in compliance with the EAO commitments for surface runoff and for any potential impact to nearby streams. The "posting of a sign on the waste pile" could be checked for compliance. Although the staff on site voiced that there was a plan in place, the possible existence of excess organic overburden could be investigated further.

2.2 Equipment and Servicing

Commitment

2.2 Point 4

- Vehicles will be parked in designated areas. These areas will be cleared or mowed open areas within the approved work limits. Vehicles will not be parked on easily combustible areas (e.g. tall dry grass or shrubs).

Inspection comment

Figure 1 is an air photo from spring 2012. It accurately shows the designated parking areas as of the inspection date. The three locations for parking are marked by red boxes on the air photograph. The upper left area identifies the location of the maintenance shop and heavy duty equipment parking area. This area is surfaced with compacted gravel. Center left in figure 1 is the office parking currently surfaced with wood pallets. Lower left is the location of the permanent plant parking. This last area is surfaced with compacted gravel. These areas are identified on the Cabin Gas Plant Key Sketch Map.
(See: Appendix I photos 320, 325, 326, 327, 328, & 384).
(See: Appendix II Key Sketch Map and Appendix III Permanent parking detailed construction map),

Commitment

2.2 Point 5 to 8

- All equipment will be maintained in good working order without leaks or excess grease on lubrication points.
- Belly pans of crawler tractors will be periodically removed and cleaned.
- Equipment will be serviced in a designated area at least 30 m away from watercourses or other identified sensitive areas if there is a risk of a spill (e.g. oil changes and hydraulic repairs).
- Hydraulic and fuel systems will be inspected regularly and leaks repaired immediately.

Inspection comment

The construction equipment is under the management of Leadcor who maintains a shop on site. Weather conditions were below zero C at the time of the field inspection. The presence of snow and frozen ground restricted the inspection for possible oil leaks. No older machinery was noted on site. The equipment at the site appeared to be clean and well maintained.

According to the Leadcor machine operator interviewed on site, Leadcor has a regular maintenance program for their heavy machinery based on the hours of service.

Maintenance records are kept for each unit. An example of a vehicle inspection record is in appendix IV.
No crawler tractors with belly pans were noted on site at the time of the inspections.

The subject of hydraulic and fuel systems inspections was discussed with leadcor staff over the phone after the inspection. The staff member who was contacted referred to their machine operator's daily checklist.
(See: Appendix IV for sample maintenance record).
(See: Photos 331 & 332)

Commitment

2.2 Point 9

- Fuel and service vehicles will be provided with an approved hydrocarbon spill kit containing items appropriate for the capacity of the vehicle.

Inspection comment

A random check of a loader was carried out on site. The machine operator indicated that each heavy machine carried two spill kits, one inside the cab and one on the outside of the cab. On the machine inspected there was what appeared to be a level 2 spill kit strapped to the roof of the Loader. This kit appeared to be in good condition. (See: Appendix I, Photos 330 Loader on site and 329 Spill Kit).

2.3 Erosion and Sediment Control

Commitment

Table4 Erosion protection - Vegetative Cover:

- Grass and Legume Seeding of large, limited slope areas and Large Flat areas
- Erosion Control Blanket Seeding
- Other Vegetative Cover

Inspection comment

The site is presently under several stages of construction. The near complete portion of Plant #1 has seeded grass on limited slope areas. The remainder of this site is surfaced with gravel or occupied by structures.
(See: Appendix I, Photo 377 Successful grass seeding).

Much of the spring seeding in other portions of the Gas Plant operating area has failed. A recent seeding of large slope areas, limited slope areas and large flat areas is evident. This recent seeding was completed at the end of this year's growing season.
(See: Appendix I, Photos 373 Re-seeded Limited slope).

Local plants and possibly seeded grass are in the process of covering the Berm, fenced line, and the ground adjacent to the drainage ditches around the perimeter. Much of the Northern portion of the site has a combination of grass and shrubs. The relationship with vegetative Cover appears to be directly related to the relative level of activity in the particular construction zone.
(See: Appendix I, Photos 339, 340 & 341).

There is evidence that fine Sediment is moving in the drainage ditches. From superficial observations the main contributor to sediment are the drainage ditch walls. There appeared to be no evidence of sediment from beyond the drainage ditches is moving at this time.
(See: Appendix I, Photos 340, 343, & 349).

Commitment

Table 4 Erosion protection – Non Vegetative Cover:

- Straw Mulch on Large Slope Areas, Limited Slope Areas and Large Flat Areas
- Gravel sheeting on Limited Slope Areas
- Rock Riprap on Limited Slope Areas, Drainage Ditches and Adjacent Property.

Inspection comment

No straw mulch was noted throughout the inspection. All of the steep sloped culvert entrances inspected have armoring with large cobbles. Heavy duty filter cloth is showing at the edges of the main roads. Gravel sheeting is being used around some of the structures but does not appear to be commonly used on limited slope areas.
(See: Appendix I, Photos 353, 354, 355 & 381).

Commitment

Table4 Runoff Control-Slope Modification

- Slope Flattening for Limited Slope Areas
- Slope Benching for Limited Slope Areas

Inspection comment

The site is presently under several stages of construction. Where construction of buildings and other structures are underway the terrain is benched and flattened throughout.
In the construction areas where material is presently being moved there exists varying stages of benching and flattening though by no means thorough. Over all the material piles are low in profile. The natural terrain is very low gradient of less than 5% slope.
(See: Appendix I, Photo 337 & 341).

Commitment

Table4 Runoff Control-Check Dams

- Straw Bale and silt Fence Check Dams
- Sand Bag Check Dams
- Permanent Check Dams

Inspection comment

Some silt fencing is in place in ditches where the construction development is more advanced. No Sandbags or permanent check dams were noted in the drainage ditches during the inspection.
(See: Appendix I, Photos 354 & 379,).

Commitment

Table4 Sediment interception for Large Slope Areas, Limited Slope Areas and Large Flat Areas.

- Vegetative Buffer Strips
- Silt Fences (Geotextile)
- Silt Fences (Burlap)
- Straw Bale Barriers
- Sediment Traps
- Filter Berms
- Outlet Protection

Inspection comment

A berm is in place around the perimeter viewed in the inspection. Only half of the fence line was walked; the NW, N, and NE section of the fence line. The berm is of sufficient height to prevent any movement of surface water from the work area. All water from the

work area is diverted to the drainage system. Only one break was noted in the berm system. This is along the NW boundary were water is diverted through the berm system into a trench that runs along the inside of the fence line. The trench is also diverted to the outside of the fence line at this point. This appeared to be the only exception to the overall drainage system design. The flow of water through this break was minimal at the time of the inspection. The source of the water that is diverted through the fence line appears to be the Northwest Corner of the area enclosed by the fence. This area is has a number of pile of overburden and appear to be temporarily placed.

The weather conditions were not optimum for observing vegetative buffer strips. No effective vegetative buffer strips were noted on the large flat areas except in the Northwest corner of the site where the berm is beginning to grow grass and small local shrubs.
As previously mentioned, some of the Limited or Large Slope areas did have successful grass seeding.
(See: Appendix I, Photo 377).

Commitment

Second to last paragraph section 2.3
To reduce the potential for erosion it may be necessary to intercept/divert surface runoff onto the disturbed area. The risk to watercourses is low due to the 400 m distance from the Project area. The erosion and sediment control is to protect surrounding wetlands and maintain proper site drainage and the integrity of the gas plant site pad. Erosion and sedimentation are expected on site following soil stripping and facility construction. If required, drainage ditches will be constructed and the runoff onto and from the disturbed area will be channeled towards a control pond to collect sediment prior to discharging. Other temporary measures such as silt fencing and sediment traps may also be used to limit discharge from disturbed areas while the site surface water collection pond is under construction. Sediment ponds that are no longer required following construction will be reclaimed and re-vegetated.

Inspection comment

The design of the drainage system is from NE to SW where a storm water pond is in place. It would appear that in general the water from the site is intercepted by the drainage ditch along the perimeter. This ditch system is designed to diverted to this water to the storage pond.
As previously mentioned there is a break in the drainage channel along the Northeast perimeter. This allows water from the Northeast corner of the site to drain away from the site. Inspection of the outside perimeter was not permitted by EnCana staff due to safety reasons. The destination of the drainage from the sight from this outlet could not be looked at to determine if this water goes to the water pond.
(See: Appendix I, Photo 337 & 338).

2.4 Clearing, Grubbing and Grading

Commitment

2.4 point 1

- Permanent fencing will be erected around the Plant limiting wildlife access to the site.

Inspection comment

A strong secure fence is in place. The fence is also equipped with three horizontal strands of electric wire on the outside. (See: Appendix I, Photos 336, 340, and 344).

3 MANAGEMENT PLANS
3.1 Soil Salvage and Stockpile Management

Commitment
3.1 points 1 & 4

- Topsoil will be salvaged and stockpiled immediately following vegetation clearing.
- Salvaged soil stockpiles will be located in the approved location shown on Figure 2.

Inspection comment
The stockpile is in place and located according to the Cabin Gas Plant Key sketch map. Some topsoil appears to be incorporated in the berm that extends around the perimeter. This could not be confirmed due to a light snow cover and frozen ground. The undeveloped area also appears to have many temporary spoil piles that may have a topsoil component. When the subject of the spoil material was brought up with EnCana supervisory staff, it was mentioned by Ron Langlois Co-site Manager that this material is to be used as fill for an onsite pit. There is also a low area that will need to be filled in. The present stockpile appears to be at maximum capacity.
(See: Appendix I, Photos 346, 348, 351, 352, and Figure 2)


Figure 2

Commitment
3.1 points 11 to 14

- Stripped reclamation material will be kept on-site in such manner that the stockpiles will not impede site drainage.
- The height of the stockpile containing topsoil will be kept as low as possible and will not exceed 4 m.
- As portions of the stockpile become completed, the slopes will be contoured to a 3:1 grade or shallower to minimize erosion and aid in vegetation establishment. Topsoil storage areas do not require stripping before material placement.
- Vegetation management of the soil stockpile will include brushing or removal of tall trees or shrubs or any other vegetation which maybe a fire hazard.

Inspection comment
The drainage system circumvents the stockpile intercepting all water flow and redirecting surface water to the perimeter of the operation. The drainage network directs water along the natural lay of the terrain from Northeast to Southwest.

Measurements of the stockpile height were made using a vertex hypsometer. The North and East sides of the stockpile do not exceed 4 metres. One measurement was taken on from the road surface to the Southwest top edge of the stockpile. Here the height measurement from the road surface to the top of the pile exceeded 6 metres. The top of the Stockpile appears to be level whereas the original profile of the ground has a gradient. In particular where the height measurement exceeded 5 metres the ground has a steeper slope than most of the terrain around. For the majority of the perimeter the Stockpile is below 4 metres in height.

Tree and shrub debris has been removed from the site.
(See: Appendix I, Photos 346, 347, 348, 349, 350, 351, & 352)

Commitment

3.1 point 15

- Stockpiles will be marked in the field with permanent signs, accurately recorded and included in the final as-built drawings.

Inspection comment

No stockpile signage was noted on site.

Commitment

3.4 point 16

- Silt fencing will be installed at the base of soil stockpiles until vegetation is established to control water erosion.

Inspection comment

Silt fencing is in place and appears to be functioning.
(See: Appendix I, Photos 351 & 352)

3.2 Waste Management Plan

Commitment

3.2.1 Sanitary Sewage

- Project personnel will be provided with temporary toilet and washing facilities. Sewage will be collected on site in a septic tank and trucked to a sewage treatment plant. Collection and disposal of sewage will be in accordance with the BC *Environmental Protection Act*.

Inspection comment

Sewage is held in sealed subsurface containers. Sewage is regularly hauled away from the site.
(See: Appendix I, Photo 367)

Commitment

3.2.2 Domestic Waste

- No waste will be disposed of on-site. Waste will be temporarily stored on site in bear-proof containers for disposal at an approved facility. Construction wastes listed in Section 3.2.3 will not be burned.

Inspection comment

Organic waste is temporarily stored on site until it is incinerated in the onsite incinerator.
(See: Appendix I, Photos 368 & 369)

Commitment

3.2.3 Construction Waste

- Scrap wood, scrap steel, scrap metal and tires will be recycled. Construction waste that cannot be recycled will be disposed of at an approved waste disposal site.

Inspection comment

Construction waste is removed and sorted. Steel and recyclables are stored at the "Wide Sky Disposal Ltd" yard for shipping; non recyclable waste is disposed of in the Northern Rockies Regional District municipal land fill.
(See: Appendix I, Photos 359, 360 & 372)

3.3.2 Handling of Hazardous Materials

Commitment

3.3.2 point 1

- Mobile equipment will be fuelled and serviced at a designated refuelling site with facilities to contain accidentally spilled fuel.

Inspection comment

A fuel Farm is in place on in the laydown area where heavy equipment is stored. The fuel farm is contained within a water tight concrete structure.
(See: Appendix I, Photos 333, 335, 361 & 362)

3.5 Wildlife Encounter Management Plan

Commitment

Point 1 & 3

- Signs, newsletters, posters or videos may be used to remind EnCana staff and Contractors how to avoid wildlife-human conflict and how to react if an encounter occurs.
- Reasonable steps will be taken to prevent employees from discarding food or food packaging in open containers.

Inspection comment

Signs are posted in the office. The staff interviewed sited training given to workers on site. The proper disposal of food waste was covered by EnCana staff during the site orientation session upon entry to the Cabin Gas Plant facility.
Staff are given as part of their S.O.P. (Standard Operating Procedures) a wildlife sightings report sheet for the purposes of recording sightings and wildlife incidents.
(See: Appendix VI, Photo 356)

Commitment

Point 2 & 4

- Garbage will be managed according to Section 3.1 (Waste Management).
- Potential attractants (e.g. bagged lunches, petroleum products, paint and other chemicals) will be secured in wildlife-resistant containers.

Inspection comment

The site was clean of garbage. There were no outside garbage receptacles observed anywhere on site. No potential wild life attractant containers of chemical products or petroleum products were observed on site.
The facility has an onsite incinerator that is used for the purposes of burning all food waste generated by staff. There is a wildlife proof container beside the incinerator for temporary storage of burnable waste.

(See: Photos 368 & 369)

4.1 Fire Response Plan

Commitment

- This Fire Response Plan considers the requirements under the BC *Wildfire Act* and Wildfire Regulation. All actions of this plan are only to be completed if it is safe to do so.

Inspection comment

Bill Pilkington EH&S lead was on site and produced documentation. The EHS (Environment Health and Safety) program includes an extensive response plan for the Cabin Gas Plant.
(See: Photos 363 & 364)

4.1.2 Fire Suppression Equipment

Commitment

Adequate firefighting equipment will be available on the Project site during construction and may include the following:

- Fire extinguishers
- Hand pumps
- Shovel
- Pulaski tool or mattock
- Water pump, hose and nozzle
- Tools and accessories necessary to operate and maintain the water pump and hoses.

Inspection comment

Emergency response equipment for fire suppression is kept on site in a shipping container that is clearly marked. According to the fire suppression lead on site the emergency water supply for water is the storm water pond.
(See: Photos 365, 366, 382, 383, 385, & 386)

Schedule B Proponent's Table of Commitments

Commitment

Number 9

- Berm constructed along the north and east sides of the property to minimize changes to the natural drainage patterns.

Inspection comment

Just over half of the perimeter was walked. Including the stockpile a berm is in place on the inside of the fence line along all of the perimeter walked.
(See: Photos 340, 341, 344, 346, & 348)

Commitment

Number 16

- Windthrow remediation along all edges of the Project site.

Inspection comment

The entire perimeter with standing timber was inspected. No evidence of windthrow was apparent. The timber is deciduous and appears to be wind firm. No further inspection of policy or project plans for wind throw remediation was investigated on this inspection.
(See: Photo 342)

Commitment

Number 17

- Cleared area in compliance with tenure.

Inspection comment

High resolution photos of the sight were taken in 2012. The photos cover only half of the plant. During the inspection a GPS was used to confirm the fence line locations. The combination of these tools would indicate that non compliance to this commitment is highly unlikely.

(See: Appendix V)

Environmental Assessment Office

Inspection Record

Project Name: Chemainus Wells	Inspection Status:
Certificate #: W09-01	Inspection No:
Certificate Status: *Certified*	Inspection Date: 2012-12-13
Region: South Coast	Office: Victoria
Trigger: Planned	**Incidents of Non-Compliance Observed: No**
Non-Compliance Decision Matrix Level: Level 0 - In Compliance	Non-Compliance Decision Matrix Category: No previous NCs, good awareness/attitude
Inspector Name(s): Justin Carlson	
Audit Record(s):	Total Non-Compliance(s):
Proponents Name: District of North Cowichan	
Proponents Contact(s): John Mackay	
Mailing Address: North Cowichan Municipal Hall 7030 Trans Canada Highway Box 278 Duncan BC V9L 3X4	
Phone No: 250-746-3100	Fax No:
Contact Email:	
Location Description: The project is located east of the Trans Canada highway just north of the Chemainus River bridge. The pump house location can be found about .5km north of the Mt Sicker Road and Trans Canada Hwy Junction.	
Lat: 48°52'44.03" N	Long: 123°42'09.70" W
Sector: Water Management	

Summary

MONITORING AND REPORTING REQUIREMENTS

Inspection Period:

From: 2012-12-13 **To:** 2012-12-13

Certificate or Act:

Environmental Assessment Certificate W09-01 issued under the Environmental Assessment Act

Activity: On Site

Inspection Summary:	**Response:**
The pump house, wells and reservoir were inspected. No compliance issues were found.	

Compliance Summary	**In**	**Out**	**N/A**	**N/D**
Automatically populated upon upload				

Inspection Details

Types of Compliance: **Operation**

Requirement Description:

Commitment A1:Project Design

Subject to the Reviewable Projects Regulation (BC Reg 370/2002), the DNC will only operate PW#2 and PW#3 between October 15th and June 15th each year and will not operate more than one of these groundwater production wells at any one time.

Findings:

Only one well was in operation at the time of inspection. The proponent is compliant with this condition.

Compliance: In

Types of Compliance: **Operation**

Requirement Description:

Commitment B3: Project Construction

Erosion protection works for the groundwater production wells will include the following components unless otherwise specified by the Vancouver Island Health Authority: a) armoured platforms constructed of fill to raise wells above the 200 year flood level; b) scour protection launching apron around each armoured pad; c) trench-filled revetment along left bank between PW#2 and PW#3; and d) placement of gravel fill along left bank between PW#2 and PW#3 to fill-in local scoured channels and minor excavation to channelize flow in the side-channel.

Findings:

The well heads are raised well above the high water mark and have adequately surrounded by riprap to prevent against any scouring. See appendix A Photo 0303-0304

Compliance: In

Types of Compliance: **Operation**

Requirement Description:

Commitment E 3: Ground Water Quality

Prior to the start of Project operations, the DNC will develop an Emergency and Contingency Plan for the operation of the wells to the satisfaction of the Public Health Engineer, Vancouver Island Vancouver Island Health Authority and in accordance with Section 13 “Emergency and Health Authority Response Plan” of the Drinking Water Protection Regulation (B.C. Reg. 200/2003).

Findings:

The Emergency and Contingency Plan was provided to our office for review on January 14, 2013. See Appendix B- Chemainus Wells Emergency Response Plan for more details.

Compliance: In

Types of Compliance: **Operation**

Requirement Description:

Commitment K 1: Emergency Response

The DNC will develop an Emergency and Contingency Plan for the operation of the wells in consultation with the Medical Health Officer of the Vancouver Island Health Authority and in accordance with the applicable provisions of the Drinking Water Protection Regulation
(B.C. Reg. 200/2003).

Findings:

See the above commitment and Appendix B-Chemainus Wells Emergency Response Plan for more details.

Compliance: In

ACTIONS REQUIRED BY PROPONENT(S) & ADDITIONAL COMMENTS:
No further action required by the proponent in regard to this inspection report.
INSPECTION CONDUCTED BY:
Signature — *Date Signed :*
Automatically populated once finalized
ENCLOSURE(S) TO PROPONENT(S) & DESCRIPTION:
Appendix A- Photos Appendix B- Chemainus Wells Emergency Response Plan
REGULATORY CONSIDERATIONS:

Environmental Assessment Office	Mailing Address: 1st Floor 836 Yates St PO Box 9426 Stn Prov Govt Victoria BC V8W 9V1	General Inquiries:(250) 356-7479 Fax:(250) 356-7440 E-mail:eaoinfo@gov.bc.ca Website:http://www.eao.gov.bc.ca

Environmental Assessment Office

Inspection Record

Project Name: Stewart Bulk Terminals Wharf...	Inspection Status:
Certificate #: T02-01	Inspection No:
Certificate Status: *Certified*	Inspection Date: 2012-11-15
Region: Skeena	Office: Victoria
Trigger: Planned	**Incidents of Non-Compliance Observed: No**
Non-Compliance Decision Matrix Level: Level 0 - In Compliance	Non-Compliance Decision Matrix Category: Compliance
Inspector Name(s): Chris Parks (EAO), Stuart Abels (FLNRO), Justin Carlson (EAO)	
Audit Record(s): N/A	Total Non-Compliance(s):

Proponents Name:
Stewart Bulk Terminals Ltd.

Proponents Contact(s):
Al Soucie

Mailing Address:
Stewart Bulk Terminals Ltd.
PO Box 278
Stewart BC
V0T 1W0

Phone No: (250) 636-2215	Fax No:
Contact Email: sbt_soucie@yahoo.ca	

Location Description:
Stewart Bulk Terminal facility, located 2.5 km southwest of Stewart BC on Portland Canal.

Lat: 55°54'55.29	N	Long: 130°00'40.57	W

Sector: Transportation

Summary

MONITORING AND REPORTING REQUIREMENTS

Inspection Period:
From: 2012-11-15 **To:** 2012-11-15

Certificate or Act:
Certificate under the Environmental Assessment Act

Activity: On Site

Inspection Summary:	**Response:**
Inspectors from the Environmental Assessment Office and the Compliance and Enforcement Branch of the Ministry of Forests, Lands, and Natural Resource Operations attended the Stewart Bulk Terminal Facility southwest of Stewart, BC, on November 15 2912 to verify the certificate holders compliance with Condition 11 of EAC# T02-01. The Certificate Holder was found to be in-compliance with this requirement.	

Compliance Summary	**In**	**Out**	**N/A**	**N/D**
Automatically populated upon upload				

Inspection Details

Types of Compliance: **Construction**

Requirement Description:

Condition 11: Stewart Bulk terminals must, in the reasonable opinion of the Minister: (a) have substantially started the Project by commencing the construction of the Project within five years of the issue date of (the certificate).

Note that Stewart Bulk Terminals Ltd. was provided a five-year extension to this time limit on September 28 2007, via an order under Section 18 of the Environmental Assessment Act. The extention expired on October 17, 2012.

Findings:
The certificate holder had provided Chris Hamilton, Executive Project Director at EAO, with a letter dated September 17, 2012, detailing on-site construction works that in their view satisfied Condition 11.

Inspectors noted that Stewart Bulk Terminals Ltd. had begun construction on the wharf expansion project, as outlined in the September 17 2012 letter, including the following elements:

1. Installation of approximately 400 square metres (25m x 15m, inspectors estimate) of large angular rip-rap within the intertidal area adjacent to the existing wharf as a component of the expanded wharf facility (photos 1 and 2);

2. Completion of fish habitat compensation works required as a component of the Project. These works involved installing a large box culvert under the Glacier Highway to allow fish passage to a section of intertidal habitat that had been isolated by the original highway construction. Construction of the project works required closing of and open cutting the highway, installation of the culvert, and the placement of rip-rap to protect the highway, the new culvert, and a section of shoreline subject to increased current action associated with the new culvert.

3. Quarrying, transport, and stockpiling of rock used in the wharf expansion and fish habitat compensation works.

The construction work completed by the certificate holder is consistent with the requirements of EAOs policy regarding the definition of "substantially started".

Compliance: In

ACTIONS REQUIRED BY PROPONENT(S) & ADDITIONAL COMMENTS:

No further action required by certificate holder with respect to Condition 11 of EAC T02-01

INSPECTION CONDUCTED BY:

Signature	*Date Signed :*
Chris Parks, Environmental Assessment Compliance Officer	2013-01-09

ENCLOSURE(S) TO PROPONENT(S) & DESCRIPTION:

1. Inspectors photographs, November 15, 2012.

2. letter dated September 17, 2012 from Dan Soucie of Stewart Bulk terminals Ltd. to Chris Hamilton of the Environmental Assessment Office.

REGULATORY CONSIDERATIONS:

Environmental Assessment Office	Mailing Address: 1st Floor 836 Yates St PO Box 9426 Stn Prov Govt Victoria BC V8W 9V1	General Inquiries: (250) 356-7479 Fax: (250) 356-7440 E-mail: eaoinfo@gov.bc.ca Website: http://www.eao.gov.bc.ca

Environmental Assessment Office

Inspection Record

Project Name: Forest Kerr	Inspection Status:
Certificate #: E3-01	Inspection No:
Certificate Status: *Certified*	Inspection Date: 2012-11-27
Region: Skeena	Office: Victoria
Trigger: Planned	**Incidents of Non-Compliance Observed: No**
Non-Compliance Decision Matrix Level: Level 0 - In Compliance	Non-Compliance Decision Matrix Category: Compliance
Inspector Name(s): Justin Carlson	
Audit Record(s):	Total Non-Compliance(s):
Proponents Name: Alta Gas Renewable Energy Inc. (Coast Mountain Hydro Corp.)	
Proponents Contact(s): Loren Kelly	
Mailing Address: Suite 2500, 1066 West Hastings Street Vancouver, BC V6E 3X2	
Phone No: 604-998-4700 Ext. 111	Fax No:
Contact Email: Kelly, Loren [Loren.Kelly@altagas.ca]	
Location Description: The Forest Kerr Hydroelectric Project is a run of river, independent power, project located approximately 37.5km West on the Eskay Creek Mine Road plus 7km on the Forest Kerr Access Road just West of the Bob Quinn Station adjacent to Highway 37. The project is approximately 200km South of Dease Lake.	
Lat: 56°44'29.27 N	Long: 130°39'11.3 W
Sector: Energy	

Summary

MONITORING AND REPORTING REQUIREMENTS
Inspection Period: **From:** 2012-11-27 **To:** 2012-11-28
Certificate or Act: Certificate #E3-01 the Environmental Assessment Act
Activity: On Site

Inspection Summary:	**Response:**
An inspection of the Forest Kerr site occurred on November 27. Loren Kelly of AltaGas and Brad Welks of EcoDynamics were available on site for the duration of the inspection. All conditions inspected against were in compliance.	

Compliance Summary	In	Out	N/A	N/D
Automatically populated upon upload				

Inspection Details

Types of Compliance: **Construction**

Requirement Description:

Commitment # 2.1 Surface Water Quality

Underground wastewater from the blasting and excavation process will be collected in settling ponds. Discharge water will be monitored to ensure the quality meets or exceeds discharge quality as approved by Ministry of Environment (MoE).

Findings:

Underground wastewater is being collected in settling ponds. No concerns have been raised through MoE inspections regarding the quality of the water being discharged. See Appendix A-Picture 0282

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment 3.1 Terrestrial

Clearing and construction within the Ningunsaw and Estshi floodplains will occur between June 15th and November 15th to avoid critical periods for moose (November 15th-May 15th) and grizzly bear (April 15th – June 15th).

Findings:

No clearing is slotted to occur in these areas. The proponent plans to run the line overtop of the area with towers in order to minimize any disturbance to the floodplains. The plans do not require any clearing or construction within the Ningunsaw and Estshi floodplain areas. Plans are in place to conduct this work outside of the mitigation windows.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment 3.2 Terrestrial

Project related low level aerial flights, in the Ningunsaw and Estshi flood plains during the critical periods for moose and grizzly bear (dates above) will be limited to flights specifically required for the installation and maintenance of the Transmission Line.

Findings:

See findings for 3.1 above.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment 3.5 Terrestrial

Clearing that is required in deciduous stands will be scheduled to avoid the May 15th to July 30th breeding and fledging period for migratory birds. If clearing is required between May 15th to July 30th a qualified professional will assess the area for nests and mitigation strategies prior to clearing.

Findings:

The proponent provided an example of one of the Bird Nesting Survey's conducted on July 25, 2012. See Appendix B. The transmission line clearing began in August 2012 and is progressing during the winter of

2012-13. The EAC holder is operating outside the timing window.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment 3.6 Terrestrial

Coarse woody debris piles will be installed in the Transmission line ROW as habitat features for Marten.

Findings:

Coarse woody debris was found on all cut line sections observed of the Transmission line ROW. See Appendix A- Picture 0291

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment 8-Aquatic Resources

Emergencies

Spills of hazardous materials to the receiving environment over the amount specified for the spilled substance in the Spill Reporting Regulation or where there is any potential introduction of deleterious substances to the aquatic environment as defined in Section 34 of the Fisheries Act, will be immediately reported to Environment Canada Emergencies, (604) 666-6100, and/or the Provincial Emergency Program, (800)-663-3456. Appropriate emergency action will then be taken.

Findings:

All spills are recorded on internal documents. Spills of the appropriate size are reported out to the appropriate agencies. See appendix C. Appendix C is a copy of the Weekly Environmental Report Summary. Note the spill mentioned on October 3, 2012 and the leaking Feller Bunchier on October 5th and 6th. It is in the proponent's employee guidelines that all spills require an incident report to be filled out by an employee. Records of all incident reports can be found in both hard and electronic copies at the site.

Compliance: In

Types of Compliance: **Pre-Construction**

Requirement Description:

Commitment #11-First Nations

Some examples of how CMHC has demonstrated First Nations Design this commitment thus far include:

• Hiring representatives of the First Nations to provide input and assist with the detailed archaeological impact assessment of the project completed by CMHC
• Incorporating into tender documents for tunnelling contracts the requirement for local First Nations involvement.
• Tendering contracts for road building and camp construction and operation only to First Nations
• Contracting First Nations to assist in the development of the final road alignment
• Obtaining First Nations input into the identification and evaluation of potential fish habitat compensation areas

Findings:

Approximately one third of the approximate 300 staff members currently employed on this project are of First Nations from the local communities. I should also note that the Tahltan Nation is also one of the main investors in this project. CMHC Has an IBA with the Tahltan nation for the Forrest Kerr Project

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #12-First Nations

Key components of the project and areas of the First Nations projects development where Coast Mountain believes band members of the First Nations can participate or benefit include the following:

- Access road construction
- Construction Camp and ancillary facilities development and installation
- Camp catering and housing support operations
- Tunnel excavation and tunnel spoil handling
- Environmental monitoring programs
- Fisheries, monitoring, enhancement and compensation programs
- Power line construction clearing and brushing
- Power plant operations and ongoing maintenance programs
- Employee training programs during construction

Findings:

See above findings for Commitment #11.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #17-Water Quality
Monitoring

CMHC is committed to implementing a water quality monitoring program and to meeting appropriate water objectives for parameters of concern, developed in consultation with regulatory authorities.

Findings:

Water quality is being monitored in "real-time" with sensors placed downstream that are constantly uploading data to the environmental monitors. The IEM and EM closely monitor water quality during in-stream works. See Appendix C and Appendix D.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #21-Terrestrial Resources
Access/Hunting/Fishing

CMHC has committed to the implementation of a "no hunting, no shooting, no fishing" policy, which would be in effect with all employees, contractors and visitors to the project site and extended from the control gate on the Eskay Creek mine road through to the project site and associated ancillary facilities. The policy with regard to this issue currently employed by the Eskay Creek Mine would be used as a model and adopted by Coast Mountain as a company policy. This policy will be followed both during operation and after the closure of the Eskay Creek Mine. In addition, CMHC policy will include that employees, contractors or visitors not be allowed to use company or contractor vehicles or equipment for
recreational purposes.

Findings:

The proponent has developed strict rules for all employees on site regarding hunting/fishing activities. A

list of the camp rules can be found in Appendix E. Any employee found breaking the rules may have their camp privileges removed, ergo the employee will not be able to work on that project again. Each employee is also given an orientation that outlines the rules and guidelines of the project. See Appendix F for a copy of the presentation.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #22-Terrestrial Resources
Restricted Access

CMHC is committed to maintaining the restricted/gated access to the project area currently employed by the Eskay Creek Mine, after the mine ceases operations.

Findings:

Access to the work site is controlled by a manned gate. The gate is manned between 7am-5pm and is locked during the remaining hours. All contractors have Road Use agreements with CMHC. Other road users must also have a Road Use Agreement requiring compliance with this policy. Gate keys are rigidly controlled and are signed out to specific contractors and other road users as per the SUP requirements. The gate is located on the Eskay Creek Mine Road, 2km past the junction of the Bob Quinn FSR. All traffic travelling to, from, and within the site is also required to radio in which kilometre, direction, type of vehicle and purpose at every marked kilometre.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #23-Terrestrial Resources
Wildlife Interactions

CMHC is committed to minimize human/wildlife interactions through the implementation of appropriate waste management and employee training programs.

Findings:

The proponent has developed a Material Storage handling and Waste Management Plan, See Appendix G. All employees receive the mandatory training presentation depicted in Appendix F. The camp site and waste facilities are also surrounded by an electric fence during bear season. See Appendix A- Photos 0276-0280. Food waste is also placed in bear proof containers within the confines of the electric fencing which are taken to a municipal dump in Dease Lake.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #25- Terrestrial Resources

Construction Timing
CMHC is committed to limiting land clearing and construction activities, as far as practical to time periods outside of those periods most sensitive to wildlife of concern, for example during spring breeding season.

Findings:

See Commitment 3.1 above. The proponent also has the required construction timing windows laid out in the Construction Environmental Management Plan. Each contractor is responsible for reviewing the CEMP and adhering to the timing windows set within. The proponent's Environmental Monitors and the Independent Environmental Monitors are on site to ensure that timing windows are adhered to. See

Appendix B for a survey conducted prior to clearing.

Compliance: In

Types of Compliance: **Pre-Construction**

Requirement Description:

Commitment #31- Project Design/ Construction

Environmental Monitor
Coast Mountain is committed to retaining the services of an independent environmental monitor to oversee environmental aspects of the project over during the two year construction window. The qualifications of the individual hired to be the monitor as well as the terms of reference for such a position, would be mutually agreed to by both Coast Mountain and regulatory authorities.

Findings:

The proponent has hired ECO Dynamic Solutions (EDS). There is currently an Independent Environmental Monitor on site at all times during any construction activity that could cause harmful alteration to the environment. EDS has been in business since 2009.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #32- Project Design/ Construction

Project Modifications
Coast Mountain has presented the project and its Construction proposed construction in the Application to the level appropriate for an environmental assessment level review. If over the course of detailed design and construction planning the project significantly deviates from that which was presented in the Application, Coast Mountain is committed to ensuring any necessary variances receive the appropriate regulatory review.

Findings:

The Environmental Assessment Certificate has been through 5 amendments since its approval in 2003. All information regarding the amendments can be found on the EAO public website located here: http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_home_161.html. Various plans directly effected by the amendments have been updated to accurately reflect the scope of the project. See Appendix H- The Construction Environmental Management Plan.

Compliance: In

Types of Compliance: **Pre-Construction**

Requirement Description:

Commitment #6- Aquatic Resources

Compensation Plan
CMHC is committed to the development and WALP Construction implementation of an acceptable Fisheries Habitat Operation Compensation Plan. The final plan will be based on the CMHC Conceptual Compensation Plan submitted and found acceptable by regulators in Nov, 2002. The final sites chosen for compensation will be based on a hierarchical approach in which evaluations of sites will begin with high priority locations working down to lower priority sites until the required compensation area has been
developed.

Findings:

A compensation plan has been developed and can be found attached as Appendix I.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #33- Project Design/ Construction

Health and Safety
CMHC is committed to ensuring all necessary health and safety regulations and requirements are implemented and followed throughout out the life cycle of the projects development.

Findings:

The proponent is very dedicated to safety on this project. All employees seen on the site were all wearing the appropriate PPE-hard hat, safety glasses, gloves and steel-toe boots. Protocols are in place for all employees to "call in" on the radio as to what location they are at, direction they are heading, type of vehicle they are driving and their purpose at every marked kilometre. All employees are given a safety orientation upon arrival to the site, the orientation is also held for all visitors attending the site as well. See appendix F.
The camp itself has strict rules in place to protect the safety of the employees. See Appendix E. As work is being conducted 24 hours a day, any employee wishing to leave the camp on their "off hours" is to notify an official of where they are going and how long they will be.
Appendix A has the following photos depicting protocols in place for safety on the work site:
0260- An Ambulance is in place for workers in a remote area of the project (McLymont)
0275- Signage regarding PPE, Speed Limits, and Radio Channels
0284-Signage for tunnels. Note the reminder for employees to sign in.
0285-Signage regarding what equipment is currently in operation underground. Note the reminder for employees to sign in.

Any current safety issues are brought up in morning tailgate meetings and/or evening meetings with project management teams.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #34-Waste Rock Chemistry (ARD)

Monitoring
CMHC is committed to conducting further ARD testing and analysis on any new drilled or exposed rock material to further evaluate the ARD potential and expand the existing rock chemistry database.
CMHC is committed to the development and implementation of a comprehensive waste rock monitoring program during the construction phase to ensure all waste rock is adequately characterized before a fin al deposition scenario is determined.

Findings:

The proponent is currently sending off samples of waste rock on a weekly basis for testing. All records of material sent can be found in both hard and electronic copies at the camp site. See Appendix J for an example of one of their testing forms being for analysis. Testing and Analysis is also covered under permitting through MoE.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #36-Waste Rock Chemistry (ARD)

Materials Handling Mitigation/Contingency Plan CMHC is committed to the development and implementation of a comprehensive materials handling, mitigation and contingency plan for all waste rock that will be excavated. The plan will be developed in consultation with regulators and First

Nations, prior to construction. The plan will deal specifically with contingencies in the unlikely event potentially acid generating material is encountered during tunnelling.

Findings:

See above Commitment 34 regarding continued testing. See appendix H for more details including the Waste Rock Geochemical Management Plan.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #37- Environmental Management Plan (EMP)

Environmental Management Plan (EMP)
CMHC IS committed to the development and implementation of a comprehensive and acceptable EMP. The plan will incorporate sub plans to deal specifically with;
• Surveillance and Monitoring
• Water Management
• Access Management
• Wildlife and Wildlife Habitat Mitigation/ Compensation
• Fish and Fish Habitat Mitigation/ Compensation
• Flow and Adaptive Management
• Site Reclamation and Decommissioning
• Waste Rock Management

Findings:

The Construction Environmental Management Plan (CEMP) is referenced many times in this report and can be found as Appendix H.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #38-Local hiring

Resources and Experience
The local communities, contractors and individuals in the vicinity of the project, have the necessary experience and understanding of the area to be a very valuable resource In the successful development of the Forrest Kerr Project. CMHC is committed to utilizing this local resource to the maximum extent possible.

Findings:

See Commitment #11 above.

Compliance: In

Types of Compliance: **Pre-Construction**

Requirement Description:

Commitment#39- Public Access to Information

Public
CMHC recognizes that the members of the public are interested In the development of such an important project as the Forrest Kerr hydro-electric development, and is committed to ensuring that the public is adequately informed about the development construction and operation of the project. This extends to ensuring that subsequent studies completed to fulfill regulatory requirements are

available for public review.

Findings:

The proponent currently has a website that provides a brief overview of the project. This information can be found here: http://www.altagas.ca/Forrest_Kerr. The website also provides updates on the status of the project through means of a newsletter as well as open house gatherings and company barbeques in local communities. All information regarding the amendment to the EAC can also be found on the EAO website listed in Commitment #32.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #6.1- Management Plans

CMHC will finalize revisions to the Construction Environmental Management Plan (CEMP) in consultation with Agencies and the THREAT, prior to construction. The Engineering Procurement and Construction Management (EPCM) firm, (maintains overall site responsibility during construction) and subcontractors on site during construction will be required to comply with the CEMP and all the associated plans. As follows:

· Access Management Plan
· Fuelling, Fuel Storage and Equipment Maintenance
· Material and Waste Management
· Invasive Plant Control Management Plan
· Waste Rock Management Plan
· Wildlife Management Plan
· Spill Contingency and Emergency Response Plan
· Sediment and Erosion Control Management Plan
· Cultural and Heritage Site Protection
· Reclamation Management Plan

Findings:

The proponent has developed a CEMP which has been uploaded to the ftp site. The plan was analyzed prior to the inspection and there were certain mitigation methods inspected against contained within the pln. See the following sections below for more details.

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Commitment 6.1-Management Plan

Sediment and Erosion Control

Findings:

The terrain chosen for the location of this project has very little Sediment and Erosion Control measures needed. No issues seen at the time of inspection.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment 6.1-Management Plan

The proponent is to have Bear-Proof bins on site in order to keep attractants to a minimum.

Findings:
There are two bear-proof bins located just outside the kitchen at the camp. The entire camp, including the waste storage area, is also surrounded by an electric fence during bear season.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment 6.1-Management Plan

The Contractor is to inspect all heavy equipment for leaks etc, on a daily basis. Logs are to be kept on site for inspection.

Findings:
Logs were available on site for inspection. Copies of the logs can be seen as Appendix K.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment 6.1-Management Plan

As part of the Access Management Plan the proponent is to plow the access road allowing for wildlife escapement areas.

Findings:
At the time of inspection there was not enough snow to warrant escapement corridors being plowed. A photo was sent into the EAO after the inspection depicting the proponent plowing the road completely to prevent wildlife being trapped on the road. See Appendix L.

Compliance: In

ACTIONS REQUIRED BY PROPONENT(S) & ADDITIONAL COMMENTS:

No follow-up action required by the proponent. Additional inspections should be completed in the spring when the snow melts.

INSPECTION CONDUCTED BY:

Signature	*Date Signed :*
Automatically populated once finalized	2012-11-27

ENCLOSURE(S) TO PROPONENT(S) & DESCRIPTION:

Appendices A-M.

REGULATORY CONSIDERATIONS:

N/A

Environmental Assessment Office	Mailing Address: 1st Floor 836 Yates St PO Box 9426 Stn Prov Govt Victoria BC V8W 9V1	General Inquiries:(250) 356-7479 Fax:(250) 356-7440 E-mail:eaoinfo@gov.bc.ca Website:http://www.eao.gov.bc.ca

Quality Wind Inspection October 17th 2012-10-17

The following was stated in last year's compliance report for this project.

6.9-1 The construction of an EMP and a CEMP for the Quality Wind Project, this stating that the proponent must construct and comply with applicable legislation, permits and approvals including the EAC.

There are several noncompliances which come into play in the following of this section. Mortenson's own erosion and sediment control plan which specifically states many measures of road construction and maintenance that are to be followed in the field.
Sediment and erosion control measures shall be installed to prevent erosion and the migration of sediment during construction.
1) Silt fences will be properly installed as per BMP 23 (Appendix C) and the applicable detail and toed in with buried material flap facing source eroding material) at the down-gradient toe of stockpiled and/or exposed soil to capture any eroded material and prevent transport of eroded material to drainages via surface water runoff.
2) Earth embankment slopes cannot be greater than 2H:1V unless otherwise noted. If the contractor is required to temporarily construct a steeper fill embankment for mobilization of equipment, the contractor is required to reduce the slope to 2H:1V prior to demobilizing from the site.
3) Install 0.6m high Rock Check Dams (RCD) (Appendix A) at 50m spacing in all ditches with grades between 4.5% - 10% as per BMP 20 (Appendix C).
4) Rip-rap all ditches with grades greater than 10%.

This year's inspection was completed on October 17th 2012. Below are the findings of the 2012 inspection.

A thorough inspection of all erosion control measures on roads A, C, G, and J was completed. In all areas observed the commitments had been met. Silt fences were observed in one location where culverts were installed on fish bearing streams. The silt fences were installed properly being toed in with material flap facing the source. All slopes in all areas observed were within the 2:1 threshold. Ditching on all roads travelled were constructed very well with an overabundance of rock armouring and rock check dams created at a minimum of 50m spacing.

A road - Has 80% vegetation cover from hydro seeding last year. There are some locations along the road where the hydro seeding was not effective. Mortenson has these areas identified and has them prepared for seeding this fall before snowfall. All tower sites have been reclaimed with natural soil material from the site and have been seeded. All tower sites have been sloped to guidelines. This section of road had relatively gentle slopes in the ditchlines where rock armouring was not required, although some rock was put in place regardless.

C road - Ditching was very well done. An abundance of rock armouring and check dams had been constructed and all were to guidelines. Mortenson believes that hydro seeding was only effective on 50% of the area seeded last year. They have identified areas to be reseeded and the new areas that have to be seeded. Seeding will be completed this fall before snowfall. All tower sites have been reclaimed with the natural stockpiled materials on site. All tower sites have been sloped to guidelines.


10/17/2012


10/17/2012

G road - This is where one of the biggest issues was from last year. Major work has been completed to correct drainage and erosion issues. Rock armouring and check dams are now in place. Tower sites are all reclaimed with natural soil and materials from on site and have been properly sloped. Mortenson has done an exceptional job.

J road - Ditching was constructed to guidelines. All tower sites have been reclaimed using natural soil and materials from onsite and have been sloped properly. Site 47 on the J road was a site that turned out to be too wet for a tower to be constructed. This tower was moved to a different location leaving the original area with a road to an opening. Mortenson has planted this area with tree's as part of the reclamation process. In all Mortenson states that they have planted 11000 trees this year and plan on planting 30000 more trees next year.

Last year there was a potential problem slope down to a stream that was identified. This area was looked at again on this inspection. It was noted that the slope has not been cross ditched and there is a very high potential for erosion and sedimentation problems. Ben Kelly from Mortenson informed me that he will have this slope cross ditched and seeded within one week of the inspection. This will be an area that should be revisited to ensure the work has been completed.

Mortenson has done an excellent job with ditching, sloping, and reclaiming. 90% of the reclaiming work has been completed. The seeding program is well underway with a modified seed mixture in hopes of achieving more than 50% success rate for germination next spring. All of the towers have been constructed and some are operational as of now. Target date for all towers to be operational is November 1st 2012.

BRITISH COLUMBIA

GENERAL INSPECTION REPORT

ID: 271449
X-Ref: IDIR\JKSMITH 2013/03/14 11:00:00

A

Licensee/ Tenure Holder: CANADA PUMICE CORPORATION
PO BOX 26
ABBOTSFORD BC V2S4N7

Operator/Contractor: CANADA PUMICE
In Attendance: James Smith/ Sue Pelletier

Tenure (type/no): /

Site ID: EAO_CA
Inspection Date (yyyy/mm/dd 24:mm): 2013/03/14 11:00
Regional Inspection: ☐
Location (optional): NAZAKO LAVA QUARRY

B — **Inspection Method** / **Area Inspected**

Ocular: ☒
Recce: ☐
Detailed Survey: ☐
Admin/Office: ☐

Area Inspected:
Location Inspected: Good portion of DL 12927 was walked in the inspection of this sale, portion of the sale on the south side of the 400 rd near Lava lake was not inspected was to much no snow and no activity.

C

Site or Activity Status:
The mine site is active 3 equipment operators on the site actively digging and stock piling various sizes of lava rock for summer usage.

D

Alleged Non-Compliance: ☐
Further Research: ☐

Compliance Summary Comments:
The site was in compliance at the time of inspection, minor abount of work was being done mostly actively processing and stockpiling different grades of lava rock. Minor thing noted onsite was the fuel storage area did not have proper spill trays and no post blocks in front of the tank, but in the old EA documents unlike the new ones this is not specified a requirement.

E

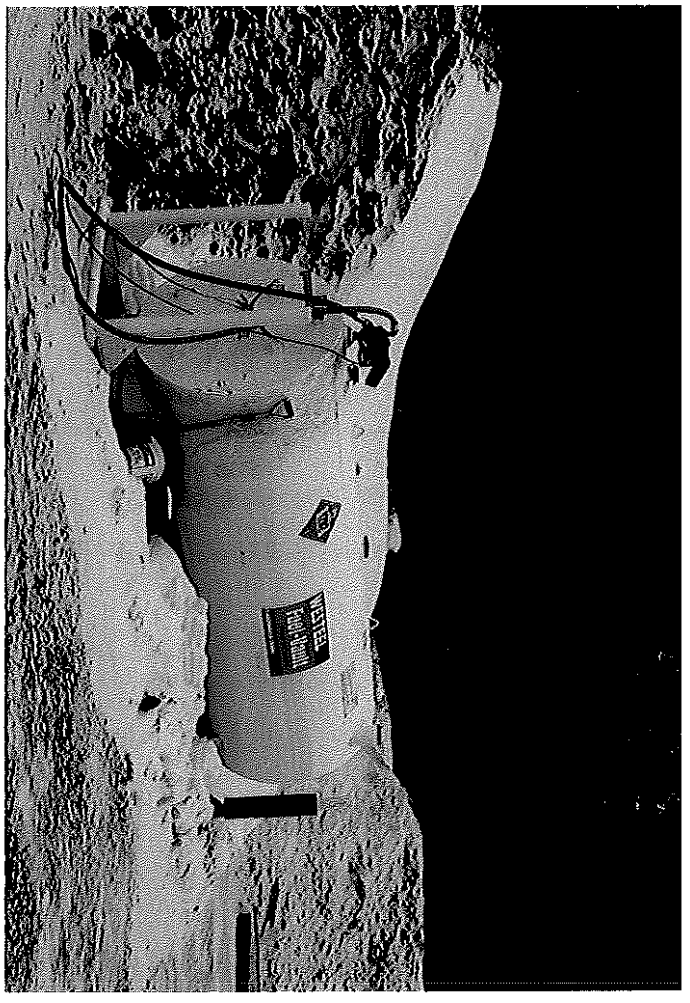
Inspector: James Smith
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

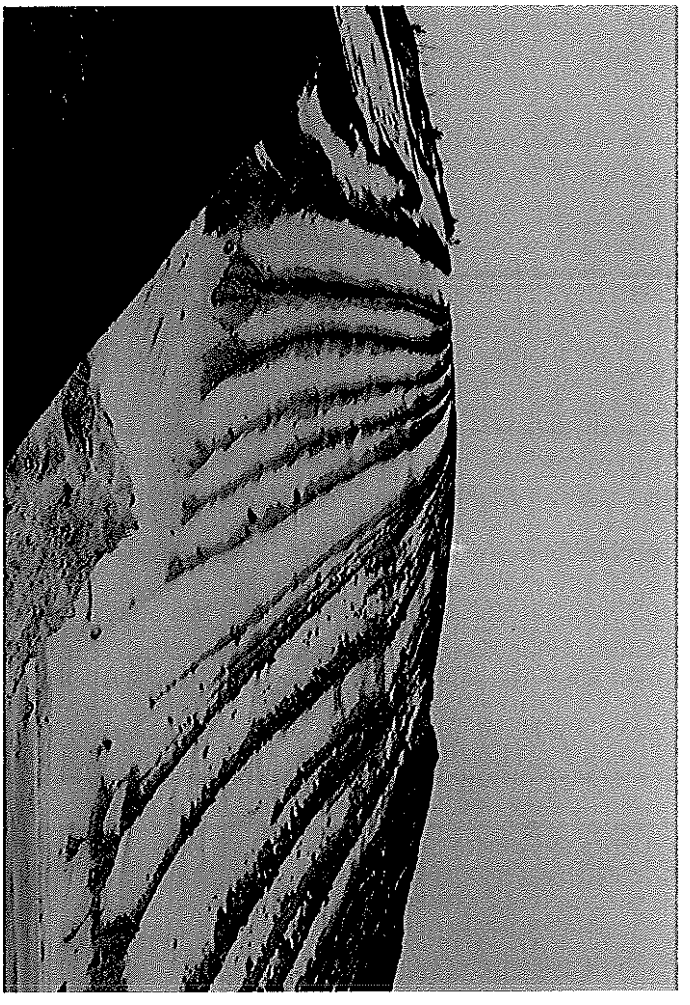
Received by: CANADA PUMICE CORPORATION
Signature: X
(Signing does not imply agreement with findings)

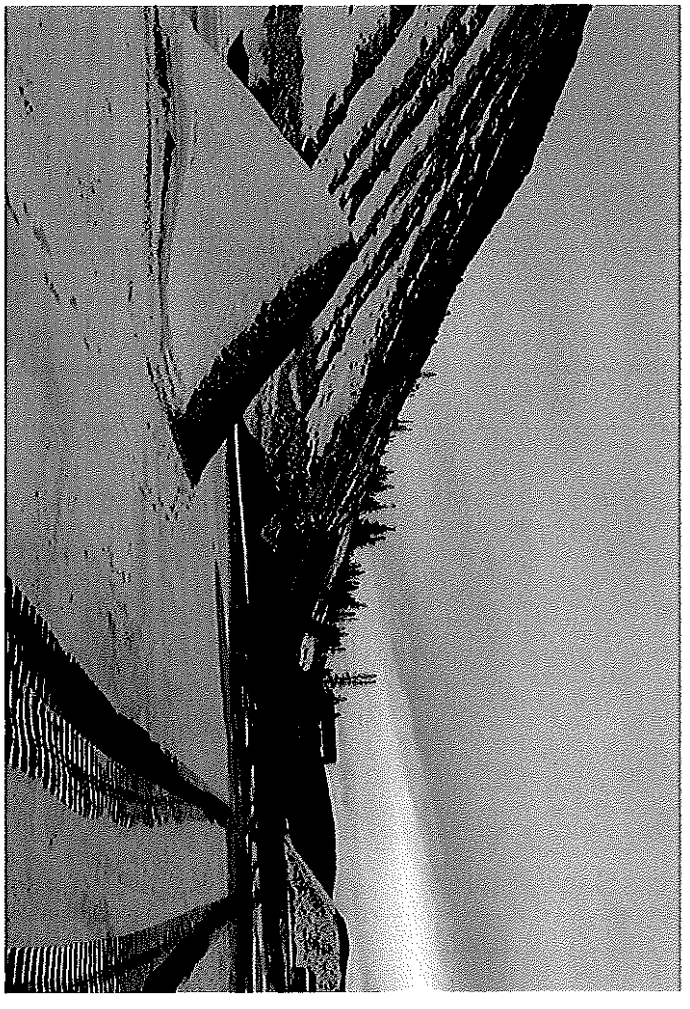
Attachment Description:
Checklist: ☐ Digital Image: ☐ Other: ☐
Checklist:
Other:

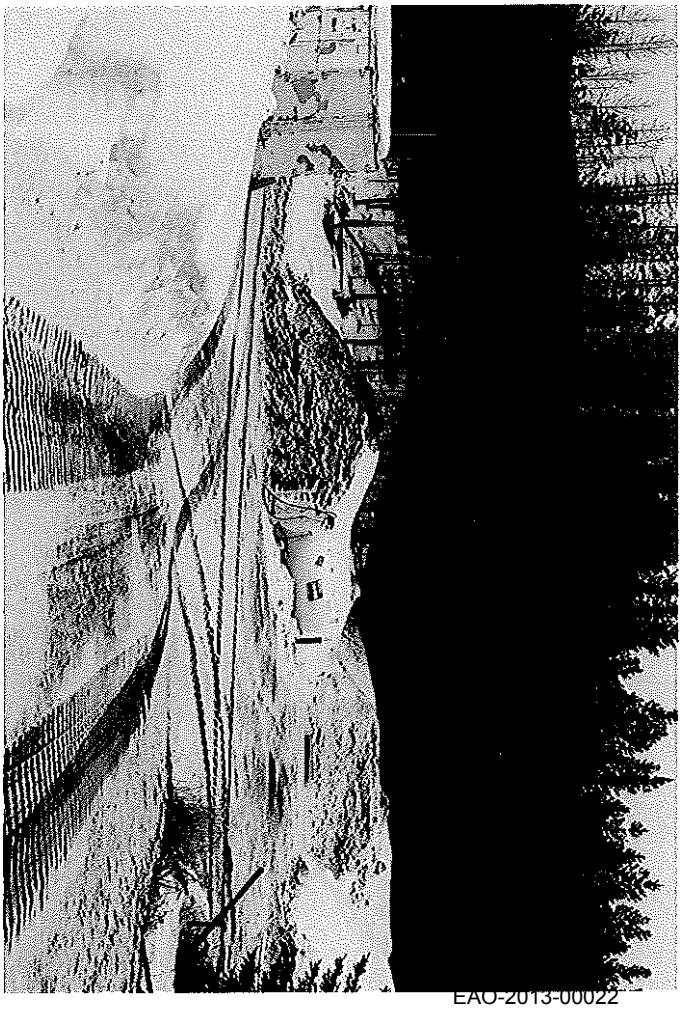
Delivery Method:
Email: ☐ Fax: ☐ Mail: ☒ Hand Delivered: ☐

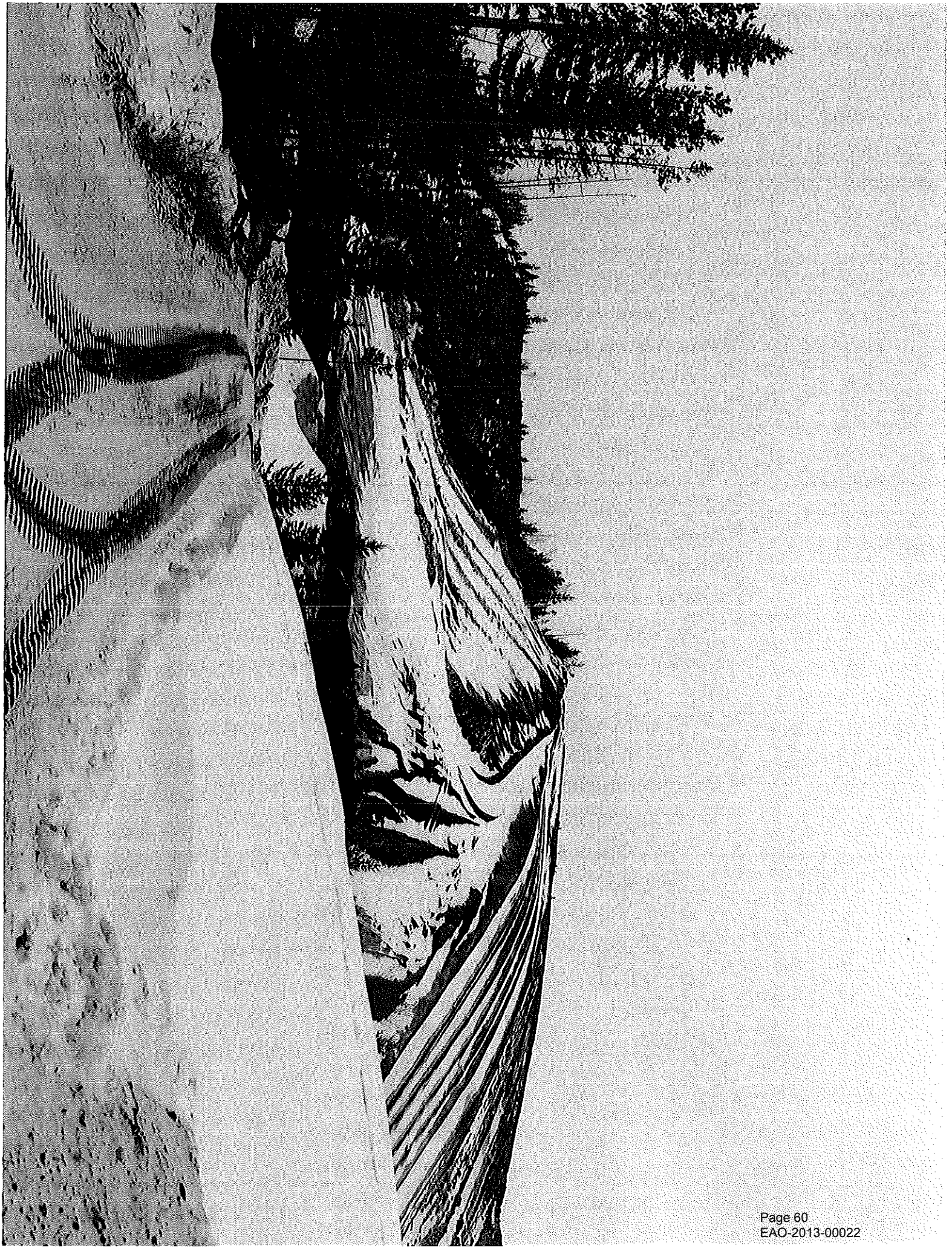
File # 23040-13/EAO_CA/CANADA PUMICE CORPORATION File #

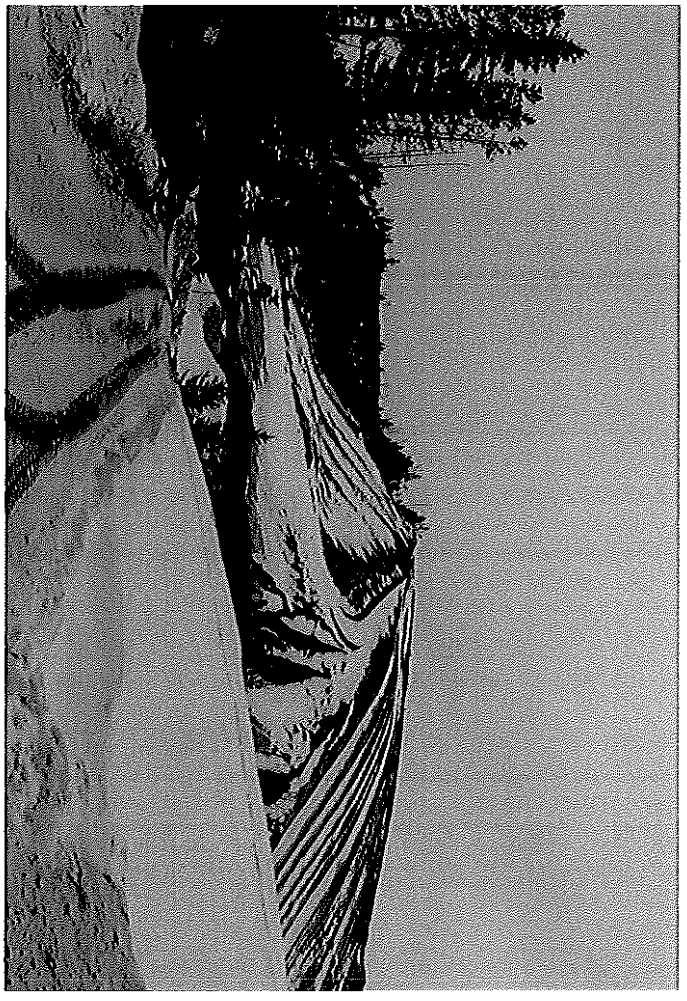


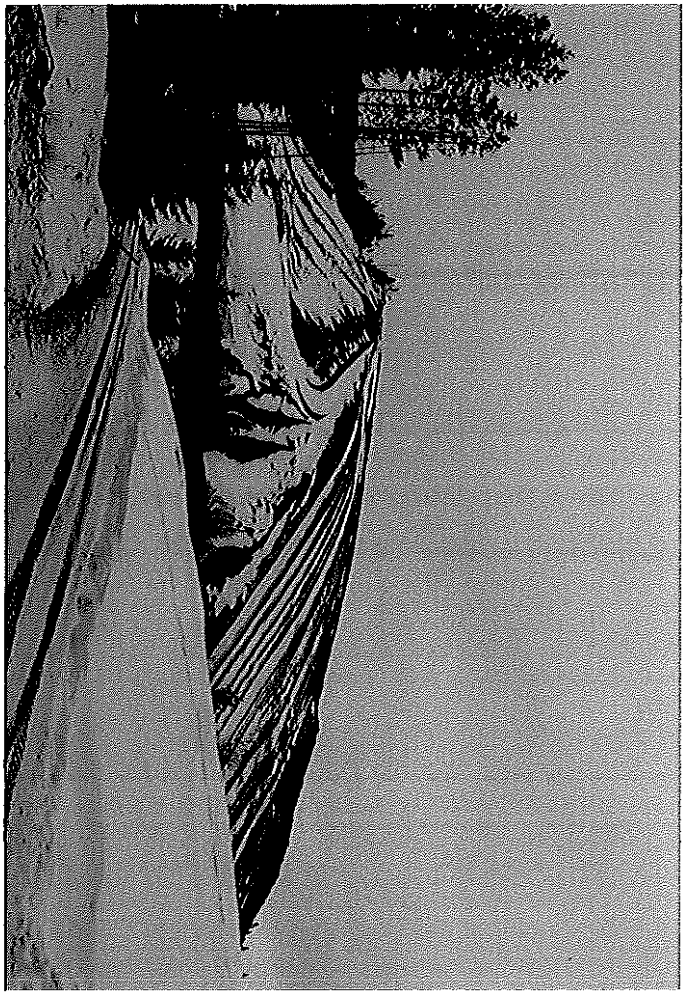


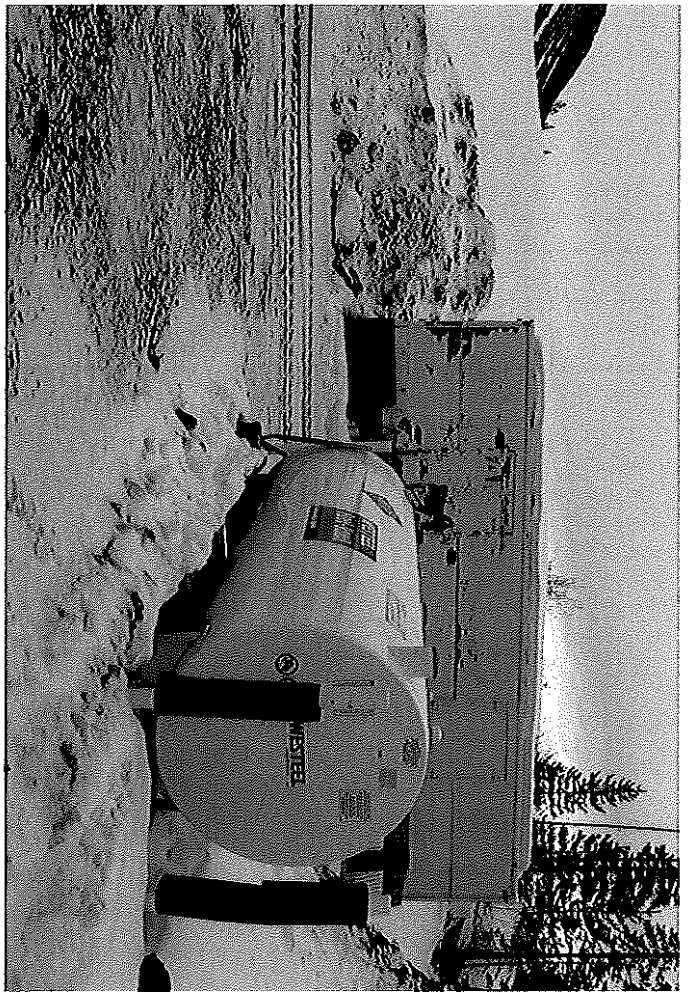


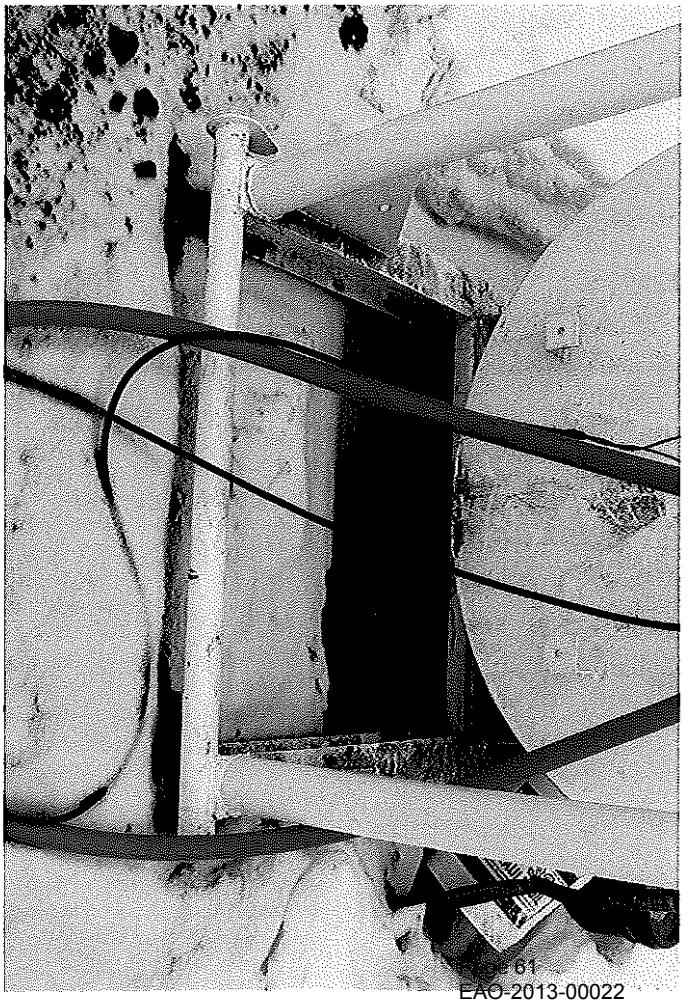


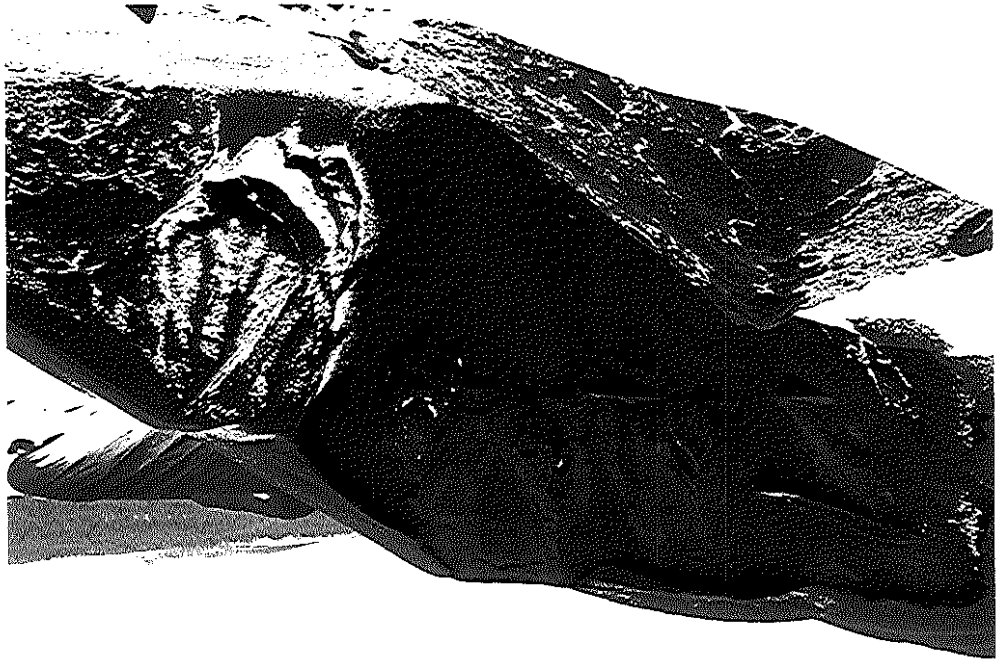


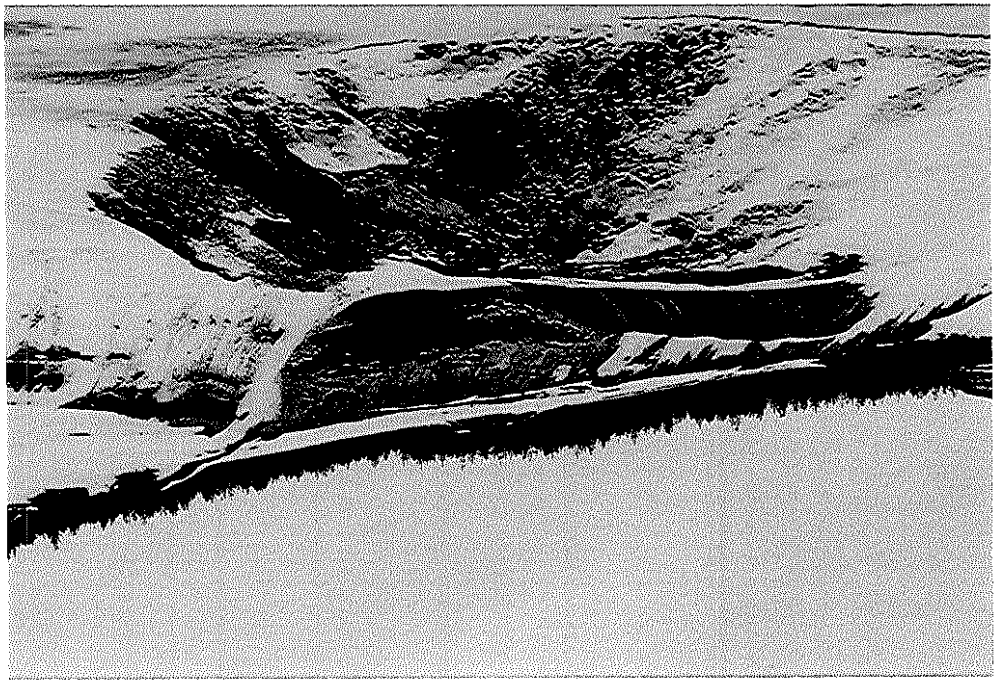


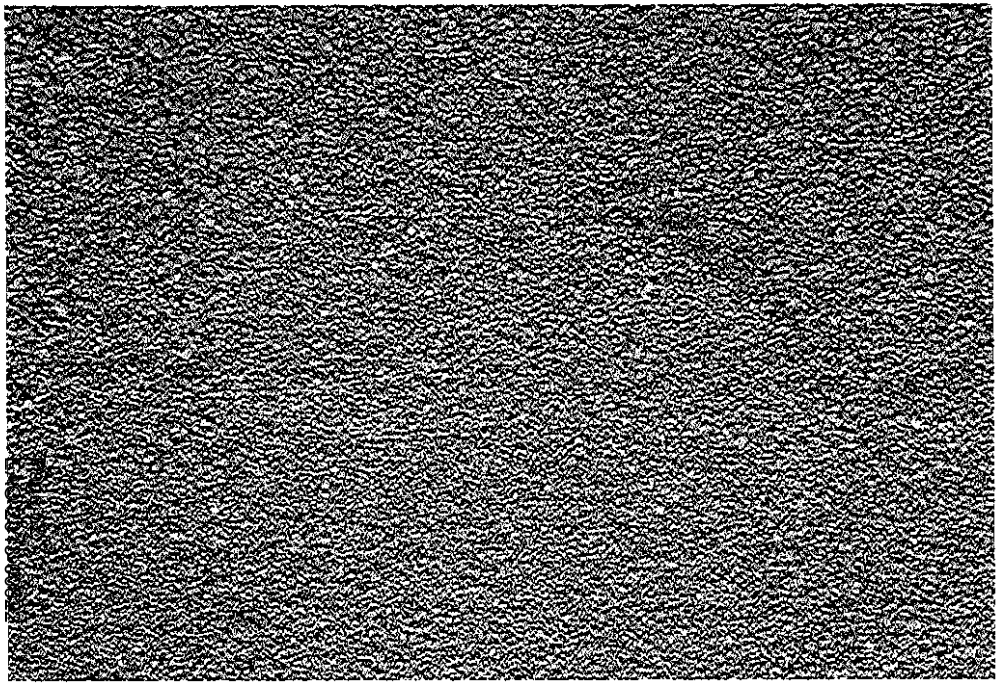


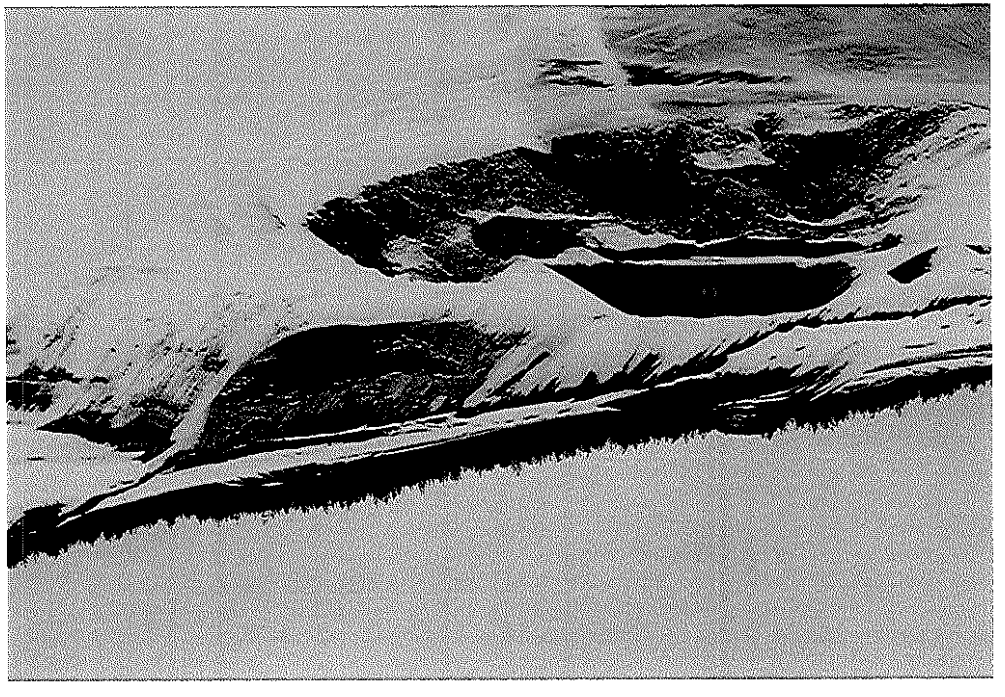


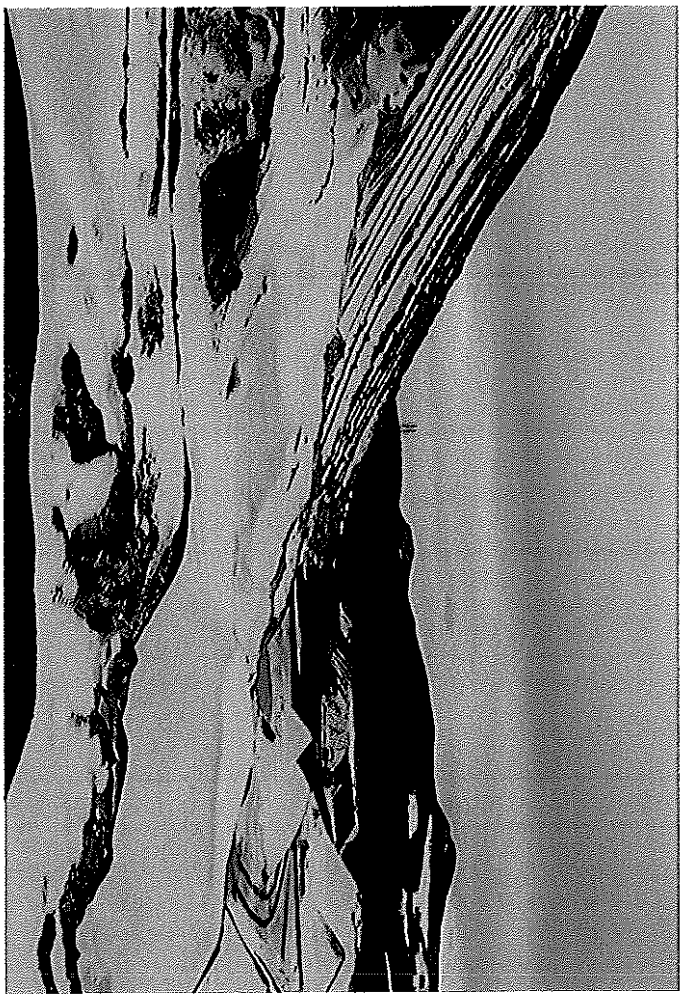


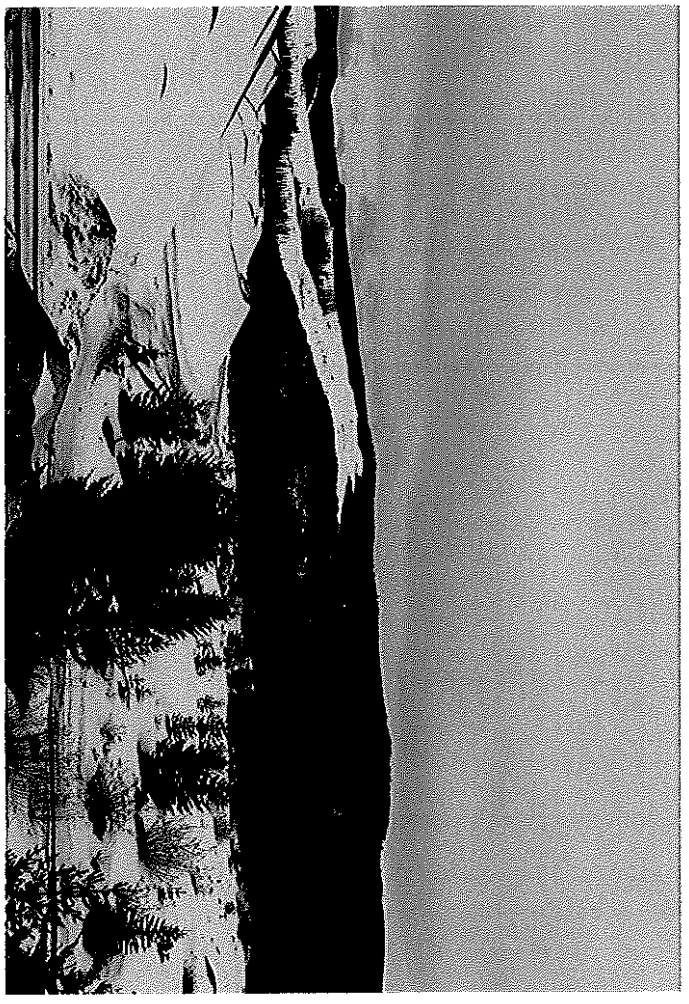


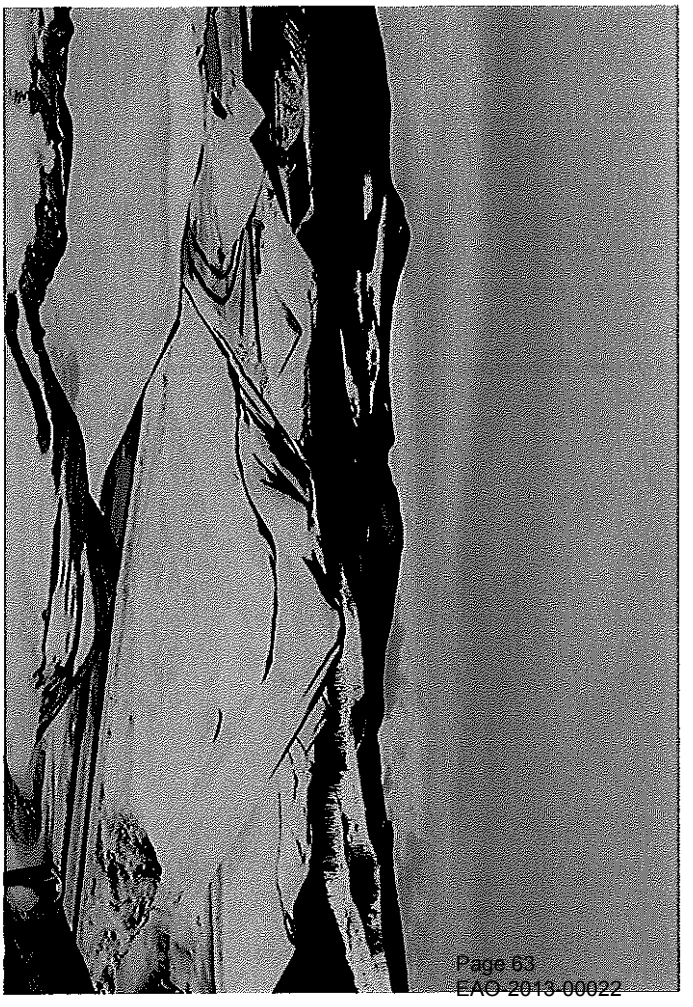












POWERSCREEN

POWERSCREEN

POWERSCREEN

BRITISH COLUMBIA

GENERAL INSPECTION REPORT

ID: 265654

A

Licensee/ Tenure Holder: KWAGIS POWER LIMITED PARTNERSHIP
SUITE 458 550 BURRARD STREET
BOX 51
VANCOUVER BC V6C2B5

Operator/Contractor:
In Attendance:

Tenure (type/no): /

Site ID: WCR EAO
Inspection Date (yyyy/mm/dd 24:mm): 2012/07/18 0:00
Regional Inspection: ☐
Location (optional): Kwagis Power Kokish River Power Project

	Inspection Method	Area Inspected
B	Ocular: ☒	Area Inspected:
C	Recce: ☒	Location Inspected: Commitments inspected include: 1, 19, 21, 25, 27, 30, 32, 34, 35, 37, 46, 47, 49, 52, 67, and 75.
	Detailed Survey: ☐	
	Admin/Office: ☐	

Site or Activity Status:
Active construction at the water intake location and excavation along the penstock pipe route.

D

Alleged Non-Compliance: ☐
Further Research: ☐

Compliance Summary Comments:
An inspection of the Kokish River Hydroelectric project was conducted to ensure compliance with the EA Certification and associated commitments. The inspection results are found in the attachments tab.

E

Inspector: Dacen Brooks
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance

Received by: Tom Vernon
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☐ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☒ Fax: ☐ Mail: ☐ Hand Delivered: ☐

File # File #

Compliance Summary Comments

An inspection of the Kokish River Hydroelectric project was conducted to ensure compliance with the EA Certification and associated commitments. The inspection results are as follows:

Commitment #1: A clear span bridge was constructed according to the conditions outlined in the CEMP. The bridge is located at northern tip of Ida Lake and joins the Kokish Main road with the Tsulton Access Road. See attached photos.
As per the environmental management plan; areas identified as sensitive habitats have been appropriately marked to provide awareness and direction to construction crews. See attached photo.

Commitment #19: Employees are prohibited from hunting/fishing during construction. This commitment is currently being met via employee training and contractual obligations as documented at the EAO. Contractors have all signed an agreement stating that they will comply with the conditions outlined in the certificate and all the prescriptions of the CEMP. Attached slide is a slide that is part of the employee orientation that every new employee receives before going on-site. Refer to documented email correspondence dated 2012-07-25.

Commitment #21: Proponent must not introduce invasive species and must inspect all equipment prior to arriving on the project site. Bill Loewen (Kiewit) stated that all the equipment was washed prior to being loaded on the barge and transported to the construction site and all equipment was inspected and signed off as it arrived on the north island. Inspection sheets were not requested during the inspection.

Commitment #25: No construction waste disposal on site and use of bear proof containers. Waste disposal bins were clearly marked on site with bins for recycling and bear proof bins for any waste that may attract wildlife were also on site at the power station yard. See attached photo.

Commitment #27: wheel washing facility. It was stated that a wheel washing facility was under construction during the inspection however it was not inspected. Follow-up required.

Commitment #30: Clean fuels and emissions. It was noted on a fuel storage container that the container contained High-Sulphur diesel for use in off highway equipment. The proponent stated that the tank was empty at the time and it would be filled with low sulphur diesel. July 25th, 2012, Telephone conversation with IEM Cedric Robert to the EAO confirmed that the fuel tank was now filled with low-sulphur diesel. See attached photo.

Commitment #32: Minimize dust. A water truck was in operation at the time of the inspection and had watered the road into the water intake and the Access Road to the Clear Span bridge.

Commitment #34: Public notification of road closures. The area was well signed with road closure notifications and the project website also identifies road closures. Advertisements were also put in the local news paper.

Commitment #35: Road construction to FRPA and FPPR standards. Roads constructed onsite appear to meet the requirements of the Forest and Range Practices Act and Regulations.

Commitment #37: Prohibition of parking in Ida Lake. On 3 separate site visits no Kewit vehicles or other construction vehicles have been noted in the Ida Lake campground. Monitoring of this commitment will continue.

Commitment #46: Radio calling on access roads. All vehicle noted on the roads in the project area have been heard using accurate calling procedures for industrial roads.

Commitment #47:Signage outlining project area. Signage of the project area has been noted and appears to be in place as per the requirements of this commitment.

Commitment #49: The proponent is to keep a log of all public noise complaints. There have been no noise complaints as of the date of this inspection.

Commitment #52: Powerhouse area fencing. The powerhouse facility is partially fenced and the proponent noted that the rest would be soon. Follow-up required.

Commitment #67: Signage at Ida Lake Recreation site. A sign has been posted identifying emergency numbers and a noise complaint phone number.

Commitment #75: River "Wardens." It was identified by the proponent that no individual person had been designated river "wardens" but all employees of Kiewit working on the site were to watch for and report any anglers noted on the river.

Attachment 1 – Clear Span Bridge

Attachment 2 - Erosion and Sediment control on Clear Span Bridge

Attachment 3 - Sensitive environment area sign

Wildlife Awareness

Zero tolerance towards feeding, harassing the wildlife or disturbance of any den of any wildlife.

No Hunting or Fishing on site.

Report all wildlife encounters, mortalities and other wildlife concerns to Environmental Department

Attachment 5 - Waste Disposal

Attachment 6 - Fuel storage tank labelled as "high sulphur - off hwy"

Environmental Assessment Office

Inspection Record

Project Name: Kokish River Hydroelectric Pr...	Inspection Status:
Certificate #: E11-02	Inspection No:
Certificate Status: *Certified*	Inspection Date: 2013-03-11
Region: South Coast	Office: Victoria
Trigger: Planned	**Incidents of Non-Compliance Observed: No**
Non-Compliance Decision Matrix Level: Level 0 - In Compliance	Non-Compliance Decision Matrix Category: Compliance
Inspector Name(s): Justin Carlson, Dacen Brooks, Brittany John, Cyndy Grant	
Audit Record(s):	Total Non-Compliance(s):
Proponents Name: Kwagis Power Limited Partnership	
Proponents Contact(s): Bill Payne or Thomas Vernon	
Mailing Address: Brookfield Suite 458, Bentall 5 550 Burrard Street, Box 51 Vancouver, BC V6C 2B5	
Phone No: (604)661-9602 or (250)974-3103 E...	Fax No: (604)687-3419
Contact Email: Vernon, Thomas [Thomas.Vernon@brookfieldrenewable.com]	
Location Description: The Kokish River Hydroelectric project is a run-of-river hydro project and is located approximately 15km East of Port McNeill on Vancouver Island.	
Lat: 52°32' N	Long: 126°52' W
Sector: Energy	

Summary

MONITORING AND REPORTING REQUIREMENTS

Inspection Period:

From: 2013-03-11 **To:** 2013-03-11

Certificate or Act:

Activity: On Site

Inspection Summary:	**Response:**
The project is well underway and no non-compliances were observed at the time of inspection.	

Compliance Summary	**In**	**Out**	**N/A**	**N/D**
Automatically populated upon upload				

Inspection Details

Types of Compliance: Construction

Requirement Description:

Commitment #1

Prior to Project construction, the Proponent must ensure a qualified professional prepares a construction Environmental Management Plan (EMP) for the Project that includes the following component plans:
Access and Traffic Management Plan (submitted to TC)
Accidents and Malfunctions Plan (submitted to TC)
Air Quality and Dust Control Plan
Archaeological Resources Monitoring Plan
Acid Rock Drainage/Metal Leachate (ARD/ML) Monitoring and Control Plan
Bear Awareness Plan
Blast Management Plan
Clearing Plan
Communications Plan
Environmental Education and Awareness Plan
Environmental Monitoring Plan (submitted to TC)
Erosion and Sediment Control Plan
Groundwater Monitoring Plan
Hazardous Materials Management Plan
Materials Management Plan
Noise Management Plan
Safety Management Plan
Site Restoration and Revegetation Plan
Spill Prevention and Emergency Response Plan
Vegetation Management Plan
Liquid and Solid Waste Management Plan
Water Quality Monitoring Plan
Intake Weir River Diversion Plan.

The Proponent must adhere to the requirements specified in the EMP and the component plans.

As per commitment 77, the Proponent must provide and maintain access to the EMP and the component plans, to the Ministry of Forests, Lands and Natural Resource Operations, the Environmental Assessment Office, Fisheries and Oceans Canada, and Transport Canada.

Findings:

Kwagis has had EcoDynamic Solutions (EDS) develop the CEMP. EDS has overseen its implementation. See Appendix B. At the time of inspection there were no new non-compliances identified. The previous non-compliance regarding the blasting of the rock into the Kokish River was identified in Inspection Report 2012-10-17 Kokish. This rock has not yet been removed. No other issues identified at the time of inspection. See Appendix A-Figures 3-6. The CEMP can be found as Appendix B.

There were no issues of sediment and erosion control noticed on this inspection. Temporary measures made through the winter months can be seen in Appendix A: Figures 12, 13, 17 and 18.

Safety signs were found at the construction area for the intake site. See Appendix A: Figure 15.

A traffic light has been installed on the bridge adjacent to the powerhouse. See Appendix A: Figure 2.

Compliance: In

Types of Compliance: Construction

Requirement Description:

Commitment #21

During Project construction, the Proponent must not introduce invasive species to the Project area, and

must inspect all construction equipment prior to arriving on the Project site to ensure it is clean and weed-free. Equipment that is not weed-free must be cleaned prior to arriving at the Project site.

Findings:

See the attached forms in Appendix C. All names have been covered to protect the identity of those involved.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #7

The Proponent must design, construct and maintain the temporary diversion channel according to all specifications outlined in the Fisheries Act Authorization for the Project under section 35(2) of the Fisheries Act. Prior to construction, the final design must be provided to the Ministry of Forests, Lands and Natural Resource Operations and Fisheries and Oceans Canada for review and comment. The Proponent must construct the temporary diversion channel as per the final design, subject to any modifications specified by Fisheries and Oceans Canada.

Findings:

The diversion has been constructed. See Appendix A Figures 7-14. Construction of the Intake Site obscures most of the diversion. See prior inspection reports for more detail on the diversion site prior to the intake's construction. There were no non-compliances identified at the time of inspection.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #8

Prior to Project construction, the Proponent must ensure a qualified professional develops a groundwater monitoring program for existing wells in the vicinity of the powerhouse location. The Proponent must implement the program as developed during construction and for the first two years of Project operations.
The Proponent must report annually, by December 31, and at the conclusion of the program, on the results of the monitoring program, to the Environmental Assessment Office and the Ministry of Forests, Lands and Natural Resource Operations. The report must be provided to the Environmental Assessment Office in a format suitable for posting to its electronic Project Information Centre.

Findings:

A copy of the report was submitted to EAO on December 27, 2012. The report has also been posted to the FTP site.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #13

The Proponent must ensure that a qualified professional engineer designs the intake structure, including the Coanda screen and fish ladder.

The Proponent must ensure that a qualified professional biologist reviews and approves the design of the intake structure, including the Coanda screen and fish ladder, prior to construction, and provides an opinion that the design will allow fish to pass upstream and downstream unimpeded.

The approval, design and opinion referred to in the preceding two paragraphs must be provided to Fisheries and Oceans Canada and the Ministry of Forests, Lands and Natural Resource Operations for their review and comment prior to construction.

The Proponent must construct the intake structure, including the Coanda screen and fish ladder, in accordance with the design referred to in the first paragraph of this commitment 13, modified only in order to ensure that fish may pass upstream and downstream unimpeded.

Following its construction, the Proponent must monitor, modify and improve the intake structure, including the Coanda screen and fish ladder, as required by Fisheries and Oceans Canada and the Ministry of Forests, Lands and Natural Resource Operations to ensure there is no Project-related impairment of upstream and downstream fish migration, regardless of flow conditions.

Findings:

The Intake is well underway and construction is being monitored by the IEM, DFO, MFLNRO and EAO. See Appendix A: Figures 7-13.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #16

Prior to Project construction, the Blast Management Plan must be provided to Fisheries and Oceans Canada and the Ministry of Forests, Lands and Natural Resource Operations for review and comment. During Project construction, the Proponent must ensure blasting is completed in accordance with the Blast Management Plan (see commitment 1), which must include mitigation measures for blasting in the vicinity of Ungulate Winter Range and for the potential introduction of nitrate residues into watercourses. Blasting warning signals must be used prior to every blast. Any blasting in or adjacent to watercourses must be undertaken in accordance with Fisheries and Oceans Canada's "Guidelines for the use of Explosives In or Near Canadian Fisheries Waters" (1998).

Findings:

See findings for Commitment #1. There were no non-compliances noted at the time of inspection. EAO/MFLNRO will follow-up with the IEM to determine when the boulder will be removed from the Kokish River.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #20

Where Project construction activities occur in the vicinity of wetland habitats, the Proponent must develop and implement a Vancouver Island water shrew and amphibian salvage and relocation program in accordance with a permit issued by the Ministry of Forests, Lands and Natural Resource Operations.

Findings:

As in previous inspections; there were areas found flagged for the purposes of an amphibian study to determine if salvage is necessary. See Appendix A: Figure 20.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #23

The Proponent must prohibit Project construction and operations personnel from feeding or harassment of wildlife on the Project site.

Findings:

No food or waste was found on the main access roads. No personnel were observed feeding/harassing wildlife. See inspection report 2012-07-18 Kokish for information regarding the training that personnel receive on site.

Compliance: In

Types of Compliance: Construction

Requirement Description:

Commitment #26

The Proponent must manage invasive species in accordance with the Vegetation Management Plan (see commitment 1) and the Weed Control Act.

Findings:

See findings for commitment #21.

Compliance: In

Types of Compliance: Construction

Requirement Description:

Commitment #27

During Project construction, the Proponent must maintain a wheel washing facility to prevent track-out of mud onto Telegraph Cove Road and Highway 19.

Findings:

The wheel washing facility has been installed and is in use. See Appendix A: Figure 16

Compliance: In

Types of Compliance: Construction

Requirement Description:

Commitment #34

Prior to and during Project construction, the Proponent must inform the public about temporary road closures and the Proponent's need to re-route traffic away from the active Project construction zone by providing this information:
To the Recreation Sites and Trails Branch of the Ministry of Forests, Lands and Natural Resource Operations for posting on their website;
To local angling, hunting, paddling and camping organizations identified during the EA or prior to Project construction;
To residential and commercial properties or operations in the vicinity of the Project area, including those in Telegraph Cove and Beaver Cove;
To Tourism BC for posting at the Tourism BC location in Port McNeill, BC; and,
On the Proponent's Project website (see commitment 57).

The Proponent must also erect appropriate signage at entry points to the Project construction area 48 hours in advance of road closures.

Findings:

The proponent updates their site monthly and as needed to inform local interest groups of any closures, paddling days etc.
Here is the website: http://www.kokishriver.com/
Signage can be found in Appendix A: Figures 1 and 2.

Compliance: In

Types of Compliance: Construction

Requirement Description:

Commitment #49

During Project construction and operations, the Proponent must maintain a log of any noise complaints received, investigate to assess whether they relate to Project activities, and if so, identify and implement practical measures that will be taken to address them.

Findings:

There have been no noise complaints to date.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #53

During Project construction, the Proponent must schedule and post on the Project website (see commitment 57), four facilitated paddling days per year. During these facilitated paddling days, paddlers will be shuttled from a specified location, likely in the vicinity of the powerhouse site, to their preferred put-in location. Arrangements must be made for radio communications with the on-site construction Contractor.

Findings:

2013's paddling days and information for recreational kayakers can be found here: http://www.kokishriver.com/content/information_updates/recreational_user_update_2013_facilitated_paddli-37023.html

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #57

Once the Proponent has leave to commence construction, the Proponent must establish and maintain, for the life of the Project, a dedicated, publicly available, Project website. The website will be used for communicating information on Project status. For example, the website will contain a construction schedule, updated weekly, and suggested check-in and check-out procedures for anyone wishing to access the watershed near active construction zones. The Proponent must also provide easily accessible “real-time” stream gauging data to the public via the Project website, subject to reasonable outage periods for maintenance and repair. Once the website is established, the link must be sent to Transport Canada, the Ministry of Forests, Lands and Natural Resource Operations, and the Environmental Assessment Office.

Findings:

The website is up and is being updated regularly. See findings for commitment #34.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #75

During Project construction and operations, the Proponent must designate personnel to act as river “Wardens” to observe and report poaching or other suspicious activities on the river to the Ministry of Environment Conservation Officer Service, to supplement similar stewardship activities by anglers and other recreational users.

Findings:

All personnel on site are told to report any suspicious activity regarding angling. No sightings have happened to date.

Compliance: In

ACTIONS REQUIRED BY PROPONENT(S) & ADDITIONAL COMMENTS:

The rock that was blasted into the main stem of the Kokish River prior to the inspection on October 17, 2012 still has to be removed.

INSPECTION CONDUCTED BY:

Signature *Date Signed :*

Automatically populated once finalized	

ENCLOSURE(S) TO PROPONENT(S) & DESCRIPTION:

REGULATORY CONSIDERATIONS:

Environmental Assessment Office	Mailing Address: 1st Floor 836 Yates St PO Box 9426 Stn Prov Govt Victoria BC V8W 9V1	General Inquiries:(250) 356-7479 Fax:(250) 356-7440 E-mail:eaoinfo@gov.bc.ca Website:http://www.eao.gov.bc.ca

Environmental Assessment Office

Inspection Record

Project Name: Kwoiek Hydroelectric Project	Inspection Status:
Certificate #: E09-01	Inspection No:
Certificate Status: *Certified*	Inspection Date: 2012-07-31
Region: Thompson	Office: Victoria
Trigger: Planned	**Incidents of Non-Compliance Observed: Yes**
Non-Compliance Decision Matrix Level: Level 1 - No impact likely	Non-Compliance Decision Matrix Category: Select an applicable category
Inspector Name(s): Justin Carlson, Brad Beaupre, Paula Griffin, Phil Belliveau, Donna Romain, Ken Soneff	
Audit Record(s): N/A	Total Non-Compliance(s):
Proponents Name: Kwoiek Creek Resources Limited partnership	
Proponents Contact(s): Robert Taylor	
Mailing Address: 206-666 Burrard St. Park Place, Vancouver, British Columbia V6C 2X8	
Phone No: 604 633-9990 x302	Fax No:
Contact Email: Robert Taylor [rtaylor@innergex.com]	
Location Description: IPP project. Located 14km south of Lytton, BC.	
Lat: 50˚11'13.87 N	Long: 121˚35'10.32 W
Sector: Energy	

Summary

MONITORING AND REPORTING REQUIREMENTS

Inspection Period:

From: 2012-07-31 **To:** 2012-08-01

Certificate or Act:

Certificate under the Environmental Assessment Act

Activity: On Site

Inspection Summary:

Kwoiek Creek Hydroelectric Project was inspected by the above on July 31/Aug 1, 2012. The transmission line portion was inspected on the first day. The transmission line had the majority of the issues relayed to the EA back in June 2012. The issues were related to contractors clearing prior to having appropriate bird nesting surveys done and contractors clearing outside of the projects ROW. These instances were addressed by the IEM by way of a Stop Work Order that lasted approximately 5 days. The contractor responsible for the infractions has since been reassigned to another part of the project. Bird nesting surveys are now being conducted accordingly.
During the inspection a few minor non-compliances were noted such as:
-an excavator was left running while the operator was nowhere in sight
-a mountain beaver colony was found and a management plan was created and implemented without consultation of MOE/MFLNRO staff.
One matter that requires further study is the Access Management Plan. Certain completed portions of the transmission line are still allowing access to the public. A review of the above mentioned plan will help to determine when the decommissioning of those access roads is to be completed.
On the second day we inspected the power station. The power station had previous non-compliance issues regarding the destruction of fish habitat. This was resolved by DFO.
One minor non-compliance issue was notified during the inspection:
-Fine material was placed near the diversion channel and next to the edge of the creek. Obvious sedimentation issues. IEM was in the process of following-up.

Response:

Advisory

Compliance Summary	In	Out	N/A	N/D
Automatically populated upon upload				

Inspection Details

Types of Compliance: Construction

Requirement Description:

Condition #12 Habitat Suitability Analysis (Grizzly Bears)
KCRLP will undertake whatever measures are necessary to avoid contravention of the Wildlife Act and the Species at Risk Act. Once the final route alignment is confirmed and prior to construction, KCRLP will retain the services of appropriately qualified professionals to undertake work described in the Kwoiek Creek Hydro Electric Project Grizzly Bear Work Plan (Golder, January 8, 2009) that was developed in consultation with the MOE to assess critical habitat potential along the transmission line corridor for grizzly bears within the Northern Cascades Grizzly Bear Population Unit. The results of this work will be provided to MOE in the form of a professionally signed and sealed report. As necessary, appropriate mitigations (including but not limited to: avoidance of critical habitats, timing windows, access management, IEM training, worker training) will be developed by qualified professionals according to acceptable scientific principles and in consultation with MOE and incorporated into the Construction Environmental Management Plan (CEMP).

Findings:

The proponent sent a copy of the Construction Environmental Management Plan(CEMP) to this office that includes a Bear Work Plan and timing windows for construction. Pre studies were conducted to determine habitat areas in agreement with MOE. The proponent was adhering to the timing windows and had wildlife awareness built in to contractor safety meetings. Employees are to work in pairs when possible, when in an area identified as bear habitat; the employees are to carry bear spray, employees should have a radio with them at all times, employees are not to leave any garbage on the work site unless it is in an approved bear-proof bin, and there are first aid stations located at specific intervals in case of any harmful encounters. All of these commitments were observed on both parts of the project.

Compliance: In

Types of Compliance: Construction

Requirement Description:

Condition #13 Species At Risk (SAR) Work Plan-Transmission Line

KCRLP will undertake whatever measures are necessary to avoid contravention of the Wildlife Act and the
Species al Risk Act. Once the final route alignment is confined and prior to construction, KCRLP will retain
the services of appropriately qualified professionals to undertake work described in the Kwoiek Creek Hydroelectric Project SAR Work plan (Focus, February 26, 2009). developed in consultation with MOE, to identify species of interest, potential effects to those species, mitigation measures (including Best Management Practices as described in Identified Wildlife Management Strategy: Accounts and Measures for Managing Identified Wildlife (MWLAP, 2004), additional field studies as necessary, and contingency plans in the event that SAR species are encountered during construction. The results of this work will be provided to MOE in the form of a professionally signed and sealed report. KCRLP will incorporate into the CEMP any mitigation measures identified by qualified professionals according to acceptable scientific principles and in consultation with MOE.

Findings:

The CEMP outlines that any new SAR areas identified will have a suitable management plan in place, or will be developed in consultation with MOE. The final plan will then be incorporated into the CEMP.
A Mountain Beaver (Aplodontia rufa) colony was found during the construction of the Transmission Line. The proponent's environmental monitor cordoned off the area with flagging tape and developed a Mountain Beaver management plan and implemented it without consulting with MOE staff. The plan was also not attached to the CEMP. A request of the plan was made and will be forwarded on to MOE biologists (Donna Romain and Phil Belliveau.) See figures 3, 4 and 5. The trees that were fallen on the northern slope will be hauled away via long line up the hill and away from the beaver habitat. The trees that were felled within the vicinity of the habitat will be left. The pole construction will occur hundreds of meters apart from the habitat site.

Compliance: Out

Types of Compliance:Construction

Requirement Description:

Condition #14 Construction Environmental Management Plan (CEMP)

KCRLP and the Environmental Consultant have compiled a draft CEMP outlining all construction activities,.
proposed timing of those activities and environmental constraints (for timing windows see Construction Schedule and Timing Windows below), and roles and responsibilities (i.e., construction manager, construction superintendent, environmental monitor, etc.). The draft CEMP has been submitted 10 the Working Groups for comment, and the final CEMP will be completed, in consultation with MOE and DFO prior to commencing construction. The contractor(s) will be contractually responsible for complying with the CEMP.

Findings:

The CEMP was created according to the condition and the CEMP is in place as a guideline to the proponent during the construction phase.

Compliance: In

Types of Compliance:Construction

Requirement Description:

Condition #15

The CEMP will address potential effects due to construction activities and will contain environmental protection proscriptions, including standard practices and specific mitigation measures, as necessary.
The following general topics will be included in the CEMP:
• Construction management;
Independent environmental monitoring;
• Construction activities, schedule, and timing windows;
Mitigation and environmental protection prescriptions;
Site clearing and preparation;
• Water control and management;
• Water quality monitoring; Erosion, sedimentation and drainage management;
• Solid and liquid waste disposal;
• Drilling and Blasting Management Plan;
• Concrete Pour and EcoSmart™ products; Spill contingency; Emergency response and contact protocols;
• Fire control:
• Dangerous Goods;
• Waste rock deposition;
• Site Reclamation/Revegetation Plan; · Noxious weed control; · Archaeological Monitoring and Management Plan;
• Management of human/wildlife interactions; and,
• Access Management Plan.
The CEMP will commit to meeting the following specific guidelines, acts. and regulations. where applicable. As well as any other applicable acts and regulations:
* see condition in certificate for full outline.

Findings:

The CEMP has included all the general topics as listed in the condition. Requests were made to the proponent to provide copies of certain appendices requested during the inspection: Access Management Plan, Wildfire Response Plan, Mountain Beaver Management Plan, along with all the rest of the attachments mentioned in the CEMP.
A sediment control issue was found in contravention of the guidelines outlined in the CEMP. See figure 16. The issue was due to the placement of fine materials located near the diversion. The IEM, Cedric Robert is in the process of dealing with this situation.

Compliance: In

Types of Compliance:Construction

Requirement Description:

Condition #16 –Independent Environmental Monitor

The MCP and CEMP will be incorporated into the contract documents. The Independent Environmental Monitor (IEM), to be hired prior to construction, will monitor and report compliance and have the authority to stop work. Reporting will be provided by the IEM to MOE - WSD and MOE - ESD. The CEMP describe the specific responsibilities of the IEM, as would be required under the Conditional Water Licence, if issued by MOE-WSD

Findings:

The Independent Environmental Monitor (IEM) hired is Cedric Roberts of ECO Dynamic Solutions (EDS) Inc. The IEM has had staff on site since construction began and has been sending compliance reports to FLNRO on a weekly basis. The IEM is provided the authority to issue a stop work order as per the conditions of the certificate and did utilize this authority in June 2012. The IEM issued a stop work order as construction crews were clearing on the transmission line without proper bird nest surveys being conducted. The construction crew also cleared a section approximately 100m long by 20m wide out of the project's ROW. The stop work order occurred after the second occurrence of the contractor clearing before a proper nesting survey was conducted. The stop work order lasted approximately five days.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition#17-Construction Schedule and Timing Windows

KCRLP will adhere to appropriate construction timing windows for SAR species, as will be identified during completion of the Kwoiek Creek Hydroelectric Project SAR Work plan (February 26, 2009). Timing windows Environmental Construction will be included in the CEMP, and generally include restrictions on activities near certain types of habitat, including:

1. blasting activity and helicopter use during Mountain Goat and SAR species timing windows;
1. in-stream work during rainbow trout spawning and egg incubation period; and,
3. clearing activities or helicopter use during bird nesting period.

Findings:

The proponent did not adhere to the clearing timing windows during the bird nesting period. The proponent's contractor cleared areas along the transmission line, (see figure 1), without having the proper bird nesting survey conducted. This occurred twice around the beginning of June 2012. A stop work order was issued by the IEM that was in effect for the period of approximately 5 days. This matter is now considered resolved as since then, the crews have all been educated on the importance of the surveys and better communication practices are now being used. The crew responsible for the infractions has been moved to another part of the project. The proponent is in compliance at the time of inspection.

One sharp shinned hawk nest was identified on the cut line at the time of inspection. All construction in that section has ceased until the birds move on. See figure 2.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #19-Clearing and Site Preparation

Clearing limits will be minimized to the extent possible and clearing limits will be clearly demarcated for each facility to avoid clearing outside of the Occupant Licence 10 Cut boundaries. The final CEMP will provide practices that will be followed to mitigate construction effects caused by clearing activities.

Findings:

The proponent has marked off all clearing areas and has even marked off the riparian boundaries near the power project. There was one instance of Non-compliance that occurred due to miscommunication between the proponent and the contractor. On the transmission line the contractor cleared a section approximately 100m long by 20m wide out of the project's ROW. See figure 1. This occurred around the same time (June, 2012) as the bird nesting issues listed above. A stop work order was issued and the crew was placed on different part of the project. Communications have since improved and no other instances of non-compliance with this condition have been reported since.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #28-Accidents
KCRLP will implement a health and safety program or require its contractors to implement a health and safety program at the project site, which will include emergency measures for worker safety. The contractor will be responsible for the public and worker safety during construction, which will include addressing rock fall hazards. KCRLP will retain a qualified professional to undertake a rock fall and avalanche hazard assessment and prepare a report prior to commencing operations. The report will include recommendations.

Findings:

Safety is a major concern on the worksite. Signs have been placed throughout the Power Station area instructing workers on what PPE is required at all times. Safety meetings are held on a daily basis on both sides (Trans.-line and Power Station) to discuss any issues or concerns the crews may have in regards to safety. First Aid stations were found at the base of the Transmission line project, and approximately halfway up the mountainside. First aid stations were found at the head and bottom of the gondola to the Power Station, as well as about halfway up the mountain on the Power Project side. Crews/vehicles each had radio communication. A Wildfire Response Plan is in place. Fire tools were noted at certain intervals on the Power Project side; fires equipment was noticed at the base of the Transmission line project. Fire index levels are monitored daily. There has not been an Extreme Fire Hazard rating noted in this area since construction began. An evacuation sign was spotted at the base of the gondola. See figure 8.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #30- Noise
All contractor vehicles and equipment will be fitted with mufflers in good working condition. The CEMP will stress the requirement for noise abatement on all equipment used on site.

Findings:

All construction vehicles noticed appear to be in good working order and were producing no excess noise.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #31-Air Quality
KCRLP will minimize air emissions during construction by requiring the contractor to adhere to prescriptions for air quality and dust control, as prescribed in the CEMP.

Findings:

One excavator was found idling on the Transmission Line project at the very top end of development. The machine idled for approximately 20 minutes while we were discussing other matters. The construction worker was not in sight at the time. There is no telling how long the machine was idling before we arrived, or for how long after.
The proponent was contacted afterwards to discuss this issue. The proponent stated that they would discuss this requirement with the responsible parties.
Dust abatement procedures were in process at the Power Project. Magnesium compounds had been applied to the roads. A water truck was also noticed watering the roads.

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Condition #43-Raptor Nest Survey-Transmission Line

KCRLP acknowledges that it is an offence under the Wildlife Act to injure, molest or destroy the nest of any bird, occupied by a bird or its egg, or the nest of an eagle. peregrine falcon, osprey, heron or burrowing owl. KCRLP has proposed a preferred transmission line route in the 2008 Amended Application. However, the final design will not be available until further into the review process. Once the design has been completed, KCRLP will retain the services of appropriately qualified professionals to undertake a surveyor active raptor nests. The results of this survey will be provided to KCRLP and MOE in the form of a professionally signed and sealed report. The transmission line will be moved to avoid raptor nests, or Best Management Practices for Raptor Conservation during Urban and Rural Land Development in British Columbia (BC MOE, 2005) will be implemented based on consultation with MOE. KCRLP will comply with the Wildlife Act.

Findings:

One sharp shinned hawk nest was identified on the cut line at the time of inspection. All construction in that section has ceased until the birds move on. See figure 2.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #44-Spotted Owl Long Term Activity Centre- Transmission Line

KCRLP will mitigate impacts of the transmission line to spotted owl habitat in the L T AC by:
1. minimizing clearing widths to the extent practical;
2. limiting construction access within the L T AC to a short temporary trail designed in consultation with MOE, to be located within the transmission line right-of-way, on the western edge of the LTAC in the area of the existing road;
3. entirely avoiding construction of new roads in the Class A habitat; and,
4. adhering to construction timing windows

Findings:

The proponent is adhering to the guidelines put forth in the CEMP. Clearing widths for the transmission line are relatively narrow (approximately 20 metres in certain sections.) Timing windows are now being adhered to for all raptors.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #48 Bear Management

Contractors will be required to follow the bear encounter procedures outlined in the CEMP, including implementation of a bear awareness program and solid waste and garbage management procedures Construction sites and work camps will be managed to ensure that all bear attractants are appropriately managed and handled. As necessary, appropriate mitigations (including but not limited to: avoidance of critical habitats, timing windows, access management. IEM training, worker training) will be determined in
consultation with MOE and incorporated into the CEMP.

Findings:

The proponent was adhering to the timing windows and had wildlife awareness built in to contractor safety meetings. Employees are to work in pairs when possible, when in an area identified as bear habitat; the employees are to carry bear spray, employees should have a radio with them at all times, employees are not to leave any garbage on the work site unless it is in an approved bear-proof bin, and there are first aid stations located at specific intervals in case of any harmful encounters. All of these commitments were observed on both parts of the project. Bear-proof bins were noted at the staging sites of the Power Project. All garbage brought out to the transmission line was to be brought back in. No litter was found on both portions of the Kwoiek Project.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #49 Mountain Goats (blasting activities during construction and operations)

Contractors will be contractually required 10 comply with the construction timing windows for blasting and helicopter use near goat winter ranges, as set forth in the CEMP. Furthermore, KCRLP will notify and discuss with MOE any construction activity, involving heavy equipment or pile driving that creates excessive noise levels near mountain goat winter ranges that is to occur outside of the construction timing windows.

Findings:

The proponent was in compliance with the blasting and helicopter use portions of this condition. There was a debate between the FLNRO biologists and the proponent regarding the use of a rock hammer and the excessive noise disclaimer in this condition. The decision was made by FLNRO staff that the rock hammer would not suffice and an agreement was reached with the proponent to have no noisy construction activity occur during the construction windows.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #50 Mountain Goat (monitoring during construction and operations)
KCRLP will discuss with MOE the approach to a Mountain Goal monitoring program during construction. The CEMP will include the details of the monitoring requirements and approach as per discussions with MOE.

Findings:

The proponent submitted a copy of the program to FLNRO. The program outlined the usage of a rock hammer. See Condition #49.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #51 Bird Nesting (clearing and site preparation)
Clearing and site preparation activities are restricted during the bird nesting period, as set out in the CEMP. In the event that clearing is required during the nesting period, KCRLP will retain an independent biologist to conduct a nesting bird survey that confirms no active nests will be affected. Should active nests be found, the IEM will notify and consult with the MOE to determine appropriate measures to comply with the Wildlife Act, depending on species and time of year, and instruct the contractor accordingly.

Findings:

Refer to conditions 17, 33 and 34 of this report for more details. Bird nesting surveys are currently underway as per the timelines proscribed in the CEMP.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #60 Archaeological Monitoring and Management Plan
Prior to construction, KCRLP will develop and Archaeological Monitoring and Management Plan, in consultation with First Nations and the Archaeology Branch of the Ministry of Tourism, Culture and Artsm that will include the following specifications: (1) archaeological monitor(s) will be on-site during the most disruptive periods and will have the authority to suspend construction activities where they are found to be in conflict with a previously unidentified archaeological site; and (2) mitigation measures will be undertaken in consultation with First Nations and the Archaeology Branch,
Any archaeological findings will be treated in a respectful manner and reported to First Nations and the Archaeological branch, All reasonable efforts will be made to avoid impacting known and unknown archaeological sites, In the event avoidance is not possible, KCRLP will retain a qualified archaeologist and apply for a permit to excavate and recover artifacts at sites that may be impacted by project facilities in consultation with First Nations.

Findings:

Archaeological monitoring is occurring before any construction activities in any new area. One site was identified at the Power Plant area in this inspection. It was sectioned off and archaeologists were able to access the area for their studies. See figure 9.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #63 Employment and Job Training
KCRLP will encourage training programs that will maximize the First Nations employment opportunities. KCRLP will give preference to contractors that commit to and have a track record of providing training and employment opportunities to local First Nations members. The selected contractors will be required to host a job fair in the local community prior to starting construction. First nations employment and contracting will be tracked during construction.

Findings:

The proponent has been working with the local first nations bands, providing them with employment and training opportunities. Local, first nations, contractors have also been hired to conduct work on the transmission line. The other main contractor, CRT, working on the power project also has a large number of local first nations working with them.
-An excerpt from Innergex's Website on the Kwoiek project:
The project will be divided into two main components: the generating project west of the Fraser River, and the transmission line. Each component will have a general contractor who is responsible for the safety, hiring, procurement and construction. Contracts between Kwoiek Creek Resources Limited Partnership and the general contractors will place a preference on employment and contracting opportunities being provided to:

Kanaka Bar Band members;
Local First Nation members; and
Local residents.

Workers must be qualified, competent and reliable.

The project will provide many opportunities for First Nations and local contractors, suppliers, and businesses in the supply of equipment, materials, services and accommodations during the construction phase. Contractors and suppliers must be qualified, experienced, capable, and cost-competitive.
Job fairs was held on June 4, 2011 at the Siska Community Hall from 10 am to 5 pm, and on June 7, 2011, at the Shulus Hall in Lower Nicola, from 3 pm to 7 pm.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #67 Continued Consultation
KCRLP will respond to issues and concerns raised at the Public Open Houses by direct reply to each individual or organized group. KCRLP will maintain their project web site (www.kwoiekcreekhydro.com) and
will compile project updates. Consultation activities will continue until the project becomes operational.

Findings:

KCRLP has a website up and is collecting information from the public in regard to concerns raised. Patrick Michelle is the community liaison for the KCRLP. Consultation is considered to be ongoing.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #53 Hunting Pressure
The Access Management Plan to be developed in consultation with MOE and Integrated Land Management Bureau will include measures to minimize Project related hunting pressure impacts. Crews

working on site will be prohibited from hunting in the project area. After construction all new transmission line access roads will be deactivated with the intent to prevent motorized access.

Findings:

The access management plan has been requested for clarification on the proponent's plans to block public access to the transmission line after construction. A concern was raised from a biologist as to when the access would be blocked off. Certain portions of the transmission line, (see attached map), have been completed but are still open to access from the public.
-A review of the Access Management Plan determined that the proponent is in compliance. The proponent is required to decommission the roads at the completion of construction. The proponent is working towards the decommissioning of the roads, but did not provide a specified time-line as the transmission line is still under construction.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #14 Construction Environmental Management Plan (CEMP)

KCRLP and the Environmental Consultant have compiled a draft CEMP outlining all construction activities,.
proposed timing of those activities and environmental constraints (for timing windows see Construction Schedule and Timing Windows below), and roles and responsibilities (i.e., construction manager, construction superintendent, environmental monitor, etc.). The draft CEMP has been submitted 10 the Working Groups for comment, and the final CEMP will be completed, in consultation with MOE and DFO prior to commencing construction. The contractor(s) will be contractually responsible for complying with the CEMP.
Section 7.8.2.2 of the CEMP requires the proponent to avoid wetland habitat when constructing access roads.

Findings:

There is one wetland section that was found after construction that had a portion of the road go through it. This section is at UTM 0598527 x 5552904 near the 2.5km mark on the road up from the Power Station. See figures 13, 14 and 15. Provincial Biologists and IEM will determine what habitat has been damaged and to what extent. IEM will provide construction dates as to when the possible offence occurred.

It was later determined that this habitat was not encroached upon. There were no non-compliances found with this portion of the CEMP at the time of inspection.

Compliance: Not Applicable

ACTIONS REQUIRED BY PROPONENT(S) & ADDITIONAL COMMENTS:

An advisory letter was sent to KCRLP/Innergex regarding the Mountain Beaver plan and the prior non-compliances handled by the IEM. The first letter was sent on November 5, 2012. The first letter contained some factual errors which resulted in the removal of some erroneous information. A second letter was sent on February 4, 2013. The second letter was accepted and agreed to on February 4, 2013.

INSPECTION CONDUCTED BY:

Signature	*Date Signed :*
Automatically populated once finalized	

ENCLOSURE(S) TO PROPONENT(S) & DESCRIPTION:

REGULATORY CONSIDERATIONS:

Environmental Assessment Office	Mailing Address: 1st Floor 836 Yates St PO Box 9426 Stn Prov Govt Victoria BC V8W 9V1	General Inquiries:(250) 356-7479 Fax:(250) 356-7440 E-mail:eaoinfo@gov.bc.ca Website:http://www.eao.gov.bc.ca

Environmental Assessment Office

Inspection Record

Project Name: ILM Transmission Project	Inspection Status:
Certificate #: E09-03	Inspection No:
Certificate Status: *Certified*	Inspection Date: 2013-03-25
Region: South Coast	Office: Victoria
Trigger: Planned	**Incidents of Non-Compliance Observed: Yes**
Non-Compliance Decision Matrix Level: Level 2 - Minor temporary impact likely	Non-Compliance Decision Matrix Category: Few NCs, not aware/capable to comply
Inspector Name(s): Chris PARKS (EAO), Robert WARNER (FLNRO) Also in attendance, Erin SCRABA (EAO), Michelle CARR (EAO), Susan FITTON (FLNRO)	
Audit Record(s): N/A	Total Non-Compliance(s):

Proponents Name:

BC Hydro

Proponents Contact(s):

Melissa Holland

Mailing Address:

333 Dunsmuir Street, 11th Floor
Vancouver, B.C.
V6B 5R3

Phone No: (604)699-9001	Fax No: (604)699-9080
Contact Email: Melissa.Holland@bchydro.com	

Location Description:

The Interior to Lower Mainland (ILM) Project is a 255 km Transmission Line (currently under construction), running between the Nicola Substation near Merritt BC, and the Meridian Substation in Coquitlam BC. The transmission line route runs southwest from the Nicola Substation, crossing the Coquihalla Connector and Coquihalla Highway before crossing the Fraser River and running along the northern edge of the Fraser Valley to Coquitlam. See project map attached as Appendix A. Location Lat and Long below are for the northern terminus of the Project at the Nicola Substation.

Lat: 50°10'47.30 N	Long: 120°23'33.39 W

Sector: Energy

Summary

MONITORING AND REPORTING REQUIREMENTS

Inspection Period:
From: 2013-03-25 **To:** 2013-03-27

Certificate or Act:
Certificate under the Environmental Assessment Act

Activity: On Site

Inspection Summary:

Inspectors from the Environmental Assessment Office (Chris PARKS, Compliance Officer), and the Compliance and Enforcement Branch of the Ministry of Forests, Lands, and Natural Resource Operations (Robert WARNER, Senior Licensed Compliance and Enforcement Officer) completed an inspection of the ILM Project against Conditions of EAC# E11-03. The purpose of the inspection was to verify the certificate holders compliance with Conditions of EAC# E11-03.

Inspectors met with representatives from BC Hydro (Don GAMBLE, Golder Associates, Kyle PADDON, Golder Associates) and Daniel JORDAN of Flatiron-Graham on March 25, who accompanied the inspectors throughout the inspection.

PARKS and WARNER inspected construction works and project access roads between the Nicola Substation near Merritt and the Ruby Creek FSR near Hope, between March 25 and 27.

PARKS completed a verbal debrief with PADDON, GAMBLE, and JORDAN on the afternoon of March 27th. PARKS noted that additional administrative work was required to determine compliance with some elements of the project, and that these would be detailed in the inspection report.

The inspection has been conduced against a subset of the conditions attached to EAC#11-03, with the following results:

In Compliance: Conditions 14, 32, 54, 62, and 92;
Out of Compliance: Conditions 8, 11, 12, and 51; and
Compliance Status Not Determined: Conditions 4 and 7.

Enforcement response is will be at the advisory level. See Regulatory Considerations section for details.

Response:
Advisory

Compliance Summary	In	Out	N/A	N/D
Automatically populated upon upload				

Inspection Details

Types of Compliance: Construction

Requirement Description:

Condition #4

BCTC will proceed to re-establish ground cover on disturbed area as soon as possible using appropriate grasses and legumes, including input on appropriate species from First Nations. Course Woody Debris (CWD) will be added to disturbed area, where appropriate, to provide cover for wildlife species (i.e. where it does not pose a risk of wildfires and where it would be beneficial to wildlife), instead of burned. Where possible, re-establishment of ground cover will be scheduled to allow adequate vegetative growth prior to the onset of fall rainfall events. If not possible, alternate erosion control measures would be provided in accordance with the sediment and erosion control plan (condition #51).

Findings:

Condition requires reestablishment of ground cover "as soon as possible" and the addition of CWD to cleared areas. CEMP (Appendix B) contains requirement for reestablishment of ground cover "as soon as possible" (CEMP, page 73, see also findings for condition #51).

Areas of disturbed soil were observed throughout the inspection and included cleared and grubbed tower foundation locations, road cuts and fills on new and upgraded access roads, and areas of cleared and grubbed right-of-way. See Field Notes numbers 2 through 4, 16, 18, and 19 (Appendix C) for examples of disturbed soil noted during inspection. No seeding or other revegetation efforts were noted during inspection. No placed CWD was noted during inspection.

Discussed revegetation strategy with JORDAN at Tower 1029 location, who noted that in grassland area the intention of Flatiron was to contract with private landowners to revegetate disturbed areas on their own property.

The inspection was conducted immediately after snow-melt in these areas, and large portions of project were still under snow. Recommend follow-up inspection under snow-free conditions to determine compliance with condition. Note that condition requires "alternate erosion control measures" if ground cover cannot be re-established prior to onset of fall rain events.

Compliance: Not Determined

Types of Compliance: **Construction**

Requirement Description:

Condition #7

Instream works will be avoided on fish-bearing watercourses. Reasonable efforts will be made to avoid instream works on non fish-bearing watercourses. If there are any activities with the potential to disrupt sensitive fish life stages (e.g., crossing of watercourses by machinery), these activities will adhere to fisheries timing windows administered by Fisheries and Oceans Canada (DFO) and the Ministry of Environment (MoE) and Best Management Practices (BMPs).

Findings:

The condition requires that insteam construction be avoided, and that any activity that has the potential to disrupt sensitive fish life stages must adhere to fisheries timing windows. Howarth Creek supports rainbow trout. The Fisheries timing window (ie the window for construction that has the potential to disrupt sensitive life stages) for rainbow trout is July 22 to October 1.

Inspectors did not note ongoing construction activity in contravention to the condition at the time of inspection, however, an inspection of the project was conducted by Coldwater Indian Band member JR SANDY and representatives of Golder Associates on April 2, 2013 (see Appendix D). That inspection noted an excavator working in water at the Tower 1099 construction site (see Appendix C Field Note 7), and that water was flowing through the site. This location is within 50m of the mainstem of Howarth Creek, and drains to Howarth Creek. The SANDY inspection report notes that work was halted at this location because the excavator was sinking in the wet soil.

Recommend follow up inspection at this location to determine compliance with condition.

Compliance: Not Determined

Types of Compliance: **Construction**

Requirement Description:

Condition #8

Construction and installations of transmission towers and the capacitor station will not occur below the High Water Mark of watercourses.

Findings:

Inspectors noted that foundation blocks for Tower 2020a were installed below the high water mark of an unnamed tributary to Maka Creek (see Appendix C, Field Note 13). The ILM Section 2 EPP (Appendix E) Mapsheet 3 of 14 clearly identifies the location of this tributary in relation to the proposed location of Tower 2020a.

In addition see findings for condition 7 with respect to Tower 1099 foundation construction work occurring within a tributary to or seasonally wetted area of Howarth Creek.

Recommend follow up inspection at this location to determine holder response to non-compliance.

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Condition #11

All construction vehicles will be thoroughly washed before their arrival to the grassland areas to minimize the potential for introduction and proliferation of invasive plants. Vehicles and equipment, including all tracked equipment, will be washed prior to and after changing site locations. Special attention will be given to wheel wells, tire treads, tracks and undercarriages where mud and seeds may be lodged. Vehicle washing will occur unless ground snow cover is present or vehicle travel is restricted to established paved roads.

Findings:

Discussed with JORDAN the requirement for all construction vehicles to be "thoroughly washed prior to their arrival in the grassland area", and requested records confirming vehicles were washed prior to commencing work on the project as required by the condition. JORDAN stated that vehicles are not inspected for this requirement prior to arrival into the grassland area.

Project vehicles were noted to be washed when moving between the grassland area and the Fraser Valley, as required by condition (Appendix C Field Note 15). JORDAN stated that all project staff and contractors were provided with a code to access the truck wash in Merritt and encouraged to wash their vehicles daily. A vehicle inspection and cleaning station, consisting of a cabinet with a dust pan, brush, and invasive plant guide, was noted at the head of a project access road (Appendix C, Field Note 5). JORDAN reports that these stations were provided at a number of locations in the grassland area, however were of limited utility.

Non compliant finding for condition 11 is in relation to failure to ensure that project vehicles are washed prior to commencing work on the project in the grasslands area.

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Condition #12

Erosion and sediment control measures will be implemented during construction in accordance with DFO's Development Guidelines for the Protection of Aquatic Habitat and MoE's Standards and Best Practices for Instream Works to prevent entry of sediment into watercourses. The sediment and erosion control measures will be inspected regularly by an Environmental Monitor during the course of construction and all necessary repairs will be made promptly if any damage occurs.

Findings:

Comparison of erosion control practices documented during inspection with requirements of condition noted non-compliance at Howarth Creek and at an unnamed Maki Creek tributary at Tower 2020A, where inspectors noted uncovered spoil piles left adjacent to watercourses. In the case of Tower 2020A location spoil piles were placed in the stream channel, with the stream flowing under the pile, and immediately adjacent to the channel, with the stream eroding the pile. See Appendix C, Field Note numbers 8 and 13. These practices are not in accordance with the "Standards and Best Practices for Instream Works" (Appendix F), as required by the condition.

Sediment and erosion control measures are being inspected regularly (typically weekly) by Golder auditors, who note issues to project environmental monitoring staff. Golder auditor PADDON provided an example of a comprehensive, recently completed audit report. The project is in compliance with this component of the certificate requirement.

A follow-up inspection is recommend to determine if non-compliant activity is addressed.

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Condition #14

When possible, vegetation clearing will take place outside of the breeding bird season (March 15 to August 15) to prevent disturbance of bird nests. If clearing is to take place during the breeding season, qualified professionals will complete nest surveys prior to construction to determine if nesting is occurring in the area. If nesting is occurring, then appropriate set-back buffers for disturbance will be applied according to provincial BMP guidelines.

Findings:

Right of way clearing was observed west of the Ruby Creek FSR (See Appendix C, Field Note on March 27, inside the restricted window for the protection of breeding birds (March 15 to August 15). JORDAN provided confirmation that the required nest surveys have been conducted at this location (towers 3610 through 3615) prior to commencing clearing (see Appendix G).

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #33

Only the required amount of explosives will be used when blasting and, where feasible, protective mats will be used during blasting to reduce noise.

Findings:

Access road upgrade work was observed along the North Emory FSR on March 27 at approximately km 1.5 (see Appendix C, Field Note 21). At the time of inspection drilling and preparation work was underway to prepare for a blast to widen the road. On March 28 the blast occurred, precipitating a rockslide at the blast location which covered the road. Flatiron Graham reported the slide to FLNRO on April 3rd. The rockslide is the subject of CIMS Report 3271851 (see Appendix H), completed by Natural Resource Officer John WAHLSTROM.

WAHLSTROM reports that there was no evidence of an excess of explosives being used at this location such as broken trees or rock embedded in trees downslope of the road (telephone conversation, PARKS and WAHLSTROM, May 6 2012). Consequently the slide appears to be related to the access maintenance work, however does not appear to indicate or be a result of excess explosives being used in the blast at this location.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #51

Prior to the commencement of construction activities, BCTC will develop an Environmental Management Program for the construction of the Project according to mitigation measures specified in the EAC Application and the framework outlined in Section 11.1 of the EAC Application.

Findings:

The Construction Environmental Management Plan (CEMP) (the "Environmental Management Program" required by the condition) was reviewed against observations made during he inspection. The following non compliances with the CEMP were noted:

Section 5.1, Sediment and Erosion Control requires the project to "Store and dispose of construction wastes, overburden, soil, or other substances in such a manner as to minimize potential for entry into any streams, watercourses, or wetlands. No materials will be stockpiled within 15 metres of the top of bank of any watercourse or wetland. Soil stockpiles will be bermed, sloped, seeded, or tarped to minimize erosion wherever possible'.

Spoil piles were observed within 15m of the top of bank at Howarth Creek and at an unnamed tributary to Maki Creek at Tower 2020a (Appendix C, Field Notes 8 and 13). The spoil piles at Tower 2020a were located both in the watercourse and immediately adjacent to the watercourse, such that the piles were subject to active erosion.

Section 5.1, Sediment and Erosion Control requires "Erosion protection for steep slopes, stockpiles, and disturbed areas. Erosion control methods shall be applied where there is potential for erosion due to rainfall or flowing water".

Areas of disturbed soil with the potential for erosion without erosion protection measures applied were observed at Howarth Creek, along the project access road between towers 1102 and 1103, at Tower 2020a, and Tower 3596 (Appendix C, field notes 8, 9, and 19 respectively).

Section 5.1, Sediment and Erosion Control requires that access roads, surface drains, and ditches be constructed in accordance with BC Hydro access requirement construction specifications. Instances of blocked culverts, installed contrary to these specifications, were noted at 2 locations (See Appendix C, Field Notes 9 and 12)(See Appendix VII to Appendix B for culvert installation specifications).

Note that Golder Associates Auditors are providing Flatiron Graham with detailed auditing reports noting erosion control deficiencies, and that Flatiron has responded to these audit recommendations by implementing sediment and erosion control measures in some areas of the project.

Section 5.4 Materials Storage and Waste Management requires the contractor to "contain all garbage and

construction wastes related to the work and dispose of it in an approved facility". The project was generally noted to be clean and free of garbage and construction waste through most worksites inspected, with the one exception of Tower 2020a, where construction waste was left onsite (Appendix C, Field Note 13).

Section 6.5, Fish Habitat Protection and Mitigation, requires that the project avoid construction and installation of transmission structures and associated infrastructure (ie anchors and guy wires) below the high water mark of any watercourse (page 50, line 13). See Appendix C, Field Note 13, and for details of installation of tower anchor point below the high water mark of a watercourse. See also findings for condition 8.

Section 6.5, Fish Habitat Protection and Mitigation, requires that the project "conduct construction activity during frozen periods on wet terrain" (page 50, line 24). An inspection of the project was conducted by Coldwater Indian Band member JR SANDY and representatives of Golder Associates on April 2, 2013 (see Appendix D). That inspection noted an excavator working in water at the Tower 1099 construction site (see Appendix C Field Note 7), and that water was flowing through the site. This location is within 50m of the mainstem of Howarth Creek, and drains to Howarth Creek. The SANDY inspection report notes that work was halted at this location because the excavator was sinking in the wet soil.

Section 5.7, Clearing and Vegetation Management, requires that all construction vehicles used on the project be washed prior to their arrival to the grassland area to minimize the potential for the introduction and proliferation of invasive plants. JORDAN states that project staff are encouraged to keep their vehicles clean and provided a free code to the truck wash in Merritt, there are no provisions to ensure that project vehicles are clean and free of plant material and seeds prior to their arrival to the grassland area.

Note that project staff did wash vehicles prior to relocation from grassland area to Fraser Valley (Appendix C, Field Note 15).

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Condition #54

BCTC will require its construction contractor(s) to retain qualified Environmental Monitor(s) to inspect, evaluate, and report on compliance with these Commitments, requirements set out in the EMP, terms and conditions of environmental regulatory approvals, and provincial BMPs. The Environmental Monitors (s) will have authority to suspend work if terms and conditions of commitments, BMPs, regulatory approvals and/or applicable legislation are not being met.

Findings:

BC Hydro has retained Golder Associates as the prime environmental contractor to provide construction oversight of the project. Flatiron Graham employs an Environmental Compliance Manager (JORDAN) and has retained environmental monitoring firm "7th Generation" to conduct day-to-day environmental monitoring. Both Golder Associates auditors and 7th Generation Environmental Monitors were observed in the field during the inspection (see Appendix C, Field Notes 7 and 17).

See Appendix I for an example of an ILM monthly monitoring report prepared by Golder Associates.

Auditors and environmental monitors have suspended work on the project in response to specific incidents relating to "commitments, BMPs, regulatory approvals and/or applicable legislation are not being met", as required by the condition. See Appendix C Field Note 6, and Appendix J, Flatiron Graham Non Conformance Report 30, both in relation to a stop work order issued by Golder Associates to prevent damage to instream habitat associated with the deterioration of an ice bridge constructed to access a tower foundation location.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #62

BCTC will prepare environmental monitoring reports during construction of the Project and site restoration monitoring reports following completion of the Project. BCTC will distribute copies of the monitoring reports to regulatory agencies, local governments, and interested and affected First Nations for review. At a minimum, circulation will consist of posting of the materials to a joint-access internet site.

Findings:

BC Hydro is preparing and circulating reports to regulatory agencies, including EAO, and has provided access to a joint-access internet site (the IPAS site) hosting these reports. See Appendix J for screen shot of IPAS site. See Appendix K for an example of a construction environmental monitoring report.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition #92

During construction, maintenance and repair activities associated with the Project, appropriate fences, signs, barriers or other measures will be used to prevent public access where required for public safety.

Findings:

Appropriate signs were observed at project access points. Note that most of the project is on Crown land and accessed over Forest Service Roads, which cannot be gate. See Appendix C, Field Notes 1 and 16 for examples of signage as required by condition.

Compliance: In

ACTIONS REQUIRED BY PROPONENT(S) & ADDITIONAL COMMENTS:

Please provide response to EAO identifying activities to be undertaken to bring project back into compliance.

INSPECTION CONDUCTED BY:

Signature	*Date Signed :*
Chris Parks	

ENCLOSURE(S) TO PROPONENT(S) & DESCRIPTION:

Appendix A: Project Map
Appendix B: ILM Construction Environmental Management Plan (CEMP)
Appendix C: March 25-27 Inspection Field Notes and Photographs
Appendix D: Field Report submitted by Coldwater Indian Band member JR SANDY
Appendix E: ILM Section 2 Environmental Protection Plan (EPP)
Appendix F: MOE Standards and Best Practices for Instream Works
Appendix G: Breeding bird survey records
Appendix H: CIMS Report 3271851
Appendix I: ILM monthly audit report for February, 2013
Appendix J: IPAS site example

REGULATORY CONSIDERATIONS:

The non-compliances noted in this inspection report are the first identified by EAO on the ILM Project. The level of harm to environmental, health, heritage, social, or economic values associated with these non-compliances is assessed as low in magnitude, reversible, and temporary in nature. The environmental auditing and monitoring programs implemented by BC Hydro and Flatiron Graham appear to be largely effective at the time of inspection, whereby issues are identified by Golder auditors or Flatiron environmental monitors, and responded to by the contractor. A follow-up inspection will be conducted to track non-compliances identified in this report.

Given these considerations, the response to the incidents of non-compliance with EAC#11-03 detailed in this report will be at the advisory level.

Environmental Assessment Office	Mailing Address: 1st Floor 836 Yates St PO Box 9426 Stn Prov Govt Victoria BC V8W 9V1	General Inquiries: (250) 356-7479 Fax: (250) 356-7440 E-mail: eaoinfo@gov.bc.ca Website: http://www.eao.gov.bc.ca

Environmental Assessment Office

Inspection Record

Project Name: Mclymont Creek	Inspection Status:
Certificate #: E12-02	Inspection No:
Certificate Status: *Certified*	Inspection Date: 2012-11-27
Region: Skeena	Office: Victoria
Trigger: Planned	**Incidents of Non-Compliance Observed: No**
Non-Compliance Decision Matrix Level: Level 0 - In Compliance	Non-Compliance Decision Matrix Category: No previous NCs, good awareness/attitude
Inspector Name(s): Justin Carlson	
Audit Record(s):	Total Non-Compliance(s):
Proponents Name: Alta Gas Renewable Energy	
Proponents Contact(s): Loren Kelly	
Mailing Address: Suite 2500, 1066 West Hastings Street Vancouver, BC V6E 3X2	
Phone No: 604-998-4700 Ext. 111	Fax No:
Contact Email: Kelly, Loren [Loren.Kelly@altagas.ca]	
Location Description: The Project is an approximately 66 MW run-of-river hydroelectric generation plant located within the Iskut River valley on McLymont Creek, a tributary of the Iskut River, in north-western British Columbia. The Project is located in a remote part of northwest BC, approximately 100 kilometres (km) northwest of Stewart and 140 km southwest of Iskut. It is located on McLymont Creek, a right bank tributary of the lower Iskut River that drains a portion of a large ice field to its north.	
Lat: 56° 41’ 11.860400 N	Long: 130° 47’ 39.402557 W
Sector: Energy	

Summary

MONITORING AND REPORTING REQUIREMENTS
Inspection Period: **From:** 2012-11-27 **To:** 2012-11-27
Certificate or Act: Certificate #E12-02 the Environmental Assessment Act
Activity: On Site

Inspection Summary:	**Response:**
An inspection of the McLymont site occurred on November 27. Loren Kelly of AltaGas and Brad Welks of EcoDynamics were available on site for the duration of the inspection. All conditions inspected against were in compliance.	

Compliance Summary	In	Out	N/A	N/D
Automatically populated upon upload				

Inspection Details

Types of Compliance: **Pre-Construction**

Requirement Description:

Condition #1- Environmental Management Plans

AltaGas must develop and implement a detailed Construction Environmental Management Plan (CEMP) in accordance with Section 10 of the Application and submit the CEMP to EAO and MFLNRO. The CEMP must contain the following sub-plans/specifications:

1. Access and Traffic Management Plan
2. Air Quality and Dust Control Plan
3. Fisheries and Aquatic Life Monitoring Plan
4. Fuel Storage, Handling and Emergency Spill Response Plan
5. ML/ARD Prediction, Prevention, Management and Monitoring Plan
6. Reclamation Plan
7. Solid Waste Management Reduction and Recycling Plan
8. Surface Erosion Prevention and Sediment Control Plan
9. Tahltan Archaeological Chance Find Procedure Plan
10. Wildlife Management and Monitoring Plan
11. Mountain Goat Monitoring and Mitigation Plan
12. Vegetation Management Plan (new, not proposed in EA Application)

The CEMP must include details for ensuring that construction activities will comply with the environmental assessment certificate, regulatory approvals, applicable legislation, and applicable industry Best Management Practices.

The CEMP must include Proponent and contractors' roles and responsibilities including any requirements for Contractor(s) to develop detailed Environmental Protection Plans (EPP) for the sub-plans listed above, monitoring requirements, reporting requirements and training components.

Findings:

The CEMP was submitted to EAO in June 2012. The CEMP was reviewed by various government representatives from different agencies including: DFO, MFLNRO, MoE, as well as local first nations and interest groups. Below will be several excerpts from the CEMP that the proponent is obligation to adhere to. See Appendix B- CEMP

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

4.2.3 Environmental Incidents-CEMP

An environmental incident is one that has caused, or has the potential to cause, one or more of the following:
☐ Environmental damage;
☐ Adverse effects to fish, wildlife, heritage or other environmental resources;
☐ Adverse publicity with respect to the environment; and,
☐ Legal action with respect to violation of statutes, regulatory authorizations or environmental damage.
Examples of environmental incidents include, but are not limited to:
☐ Spills of oil, fuel, Polychlorinated Biphenyls (PCBs) or other hazardous chemicals;
☐ Discharges of deleterious substances into fish-bearing waterbodies;
☐ Landslides, erosion, or floods with the potential to adversely affect environmental quality;
☐ Harmful alteration, disruption, or destruction of aquatic or terrestrial habitat without prior written approval and authorization; and

☐ Wildfires related to construction activities.

The target deadline for reporting is within 24 hours following an incident.
The Environmental Incident Report shall characterize and document the:
☐ Cause and nature of the incident;
☐ Approximate volume of release, area or habitat affected;
☐ Aquatic, terrestrial and/or cultural resources affected;
☐ Mitigation measures taken to control or limit the activity causing the incident; and
☐ Additional recommended remedial or corrective actions.
The responsible contractor's Environmental Representative would prepare the Environmental Incident Report and notify the appropriate personnel based on the severity of the incident. The incident report will
be distributed as per a list established by AltaGas's Site Manager and/or Project Manager.

Findings:

All spills and environmental incidents are reported on. Supporting documentation was available on site at the time of inspection. Spills of every size are reported to the on site environmental staff. The spill reporting regulations are also included in the appendices of the CEMP. See appendix B- CEMP

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

4.3.1 Environmental Orientation Training-CEMP

Upon arrival at the Project site, all staff and craft workers are required to attend an Environmental Orientation Training session prior to beginning work. These training sessions will include at a minimum:
☐ Overview of the Project;
☐ AltaGas's Corporate Environmental Mission Statements;
☐ Overview of the CEMP;
☐ Environmental Objectives of the Project;
☐ Environmental Setting of the Project;
☐ Environmentally Sensitive Areas, where applicable;
☐ Tahltan Cultural history, Chance Find Procedures;
☐ Protection requirements for Archaeological remains under the Heritage Conservation Act;
☐ Human-Bear Interactions and Prevention;
☐ Spill Response and Reporting expectations; and
☐ Environmental Dismissal Policy.
Upon completion all workers will be required to sign a training sheet indicating their participation and understanding of the McLymont Creek Construction Environmental Management Plan.
The contractor(s) Environmental Representative shall maintain the training record of all employees who have attended Environmental Orientation Training. These records shall be kept on file for inspection/auditing by AltaGas.

Findings:

Everything is currently being run the Forest Kerr camp. I attended the orientation for Forest Kerr, it covers off everything specified in the information above and pertains to the McLymont Project as well. See Appendix C-FK Orientation Rev. 7a. Training records were available upon request at the campsite.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

5.1 SURFACE EROSION PREVENTION AND SEDIMENT CONTROL SPECIFICATIONS-CEMP

The Contractor(s) shall prepare site-specific Surface Erosion Prevention and Sediment Control plans which shall address, at a minimum, the following requirements:

☐The nature and location of silt fences, berms, swales, ditches, check dams, settling ponds, and other sediment and erosion control facilities, as required. Effective sediment and erosion control measures shall be installed before starting work to minimize potential for introduction of sediment into watercourses in accordance with the Land Development Guidelines for the Protection of Aquatic Habitat (DFO 1993) and Standards and Best Practices for Instream Works (MWLAP 2004).
☐Weekly inspection of sediment and erosion control measures during the course of construction and conduct necessary repairs in a timely manner if damage occurs. These facilities shall be maintained until construction is completed and the affected areas are sufficiently stabilized and re-vegetated so that there is minimal risk of erosion or sedimentation at the site as a result of construction activities.
☐Storage and disposal of construction wastes, overburden, soil, or other substances in such a manner as to minimize potential for entry into any streams or watercourses. No materials shall be stockpiled within riparian areas (i.e., 30 metres of the top of bank of any watercourse), unless otherwise reviewed by the IEM and deemed to pose a low risk of sediment entry into any watercourse. Soil stockpiles shall be bermed, sloped and seeded, or covered to minimize erosion, wherever possible.
See Appendix B-CEMP page 23 for more requirements.

Findings:

At the time of inspection there were currently no erosion issues observed. The road construction to the Mclymont Site was conducted on flat, even terrain. The two stream crossings observed on the inspections were crossed with bridges and both sides of the creek are armored next to the bridges. Seth and Jennifer Creeks are both non-fish bearing streams. See Appendix A-Photos 0265, 0266.

Compliance: In

Types of Compliance:Construction

Requirement Description:

5.2.2 Other Monitoring-CEMP

Where work is required in potential acid generating rock locations, the contractor(s) shall meet the monitoring requirement as outlined in the ML/ARD Prediction, Prevention, Management and Monitoring Specifications. (Appendix C and Section 5.12).
Work requiring concrete and concrete products shall meet the requirements outlined in Section 5.4.5 Concrete and Concrete Products.

Findings:

The proponent is currently adhering to this requirement. See appendix D-Mclymont Reports.

Compliance: In

Types of Compliance:Construction

Requirement Description:

5.3 FUEL STORAGE, HANDLING AND EMERGENCY SPILL RESPONSE SPECIFICATIONS-CEMP
5.3.1 General Specifications

Contractor(s) shall prepare Fuel Storage, Handling and Emergency Spill Response Plans specific to their work activities and methods. The Plans shall adhere to requirements of the Spill Reporting Regulation (see Appendix D), and meet current BC Guidelines for Industry Emergency Response Plans and/or the CSA Z731-03-CAN/CSA Emergency Preparedness and Response standards.
In addition and where applicable, the Contractors' EPPs shall address the storage of Environmental Emergency (E2)-listed chemicals, where such chemicals are stored above specified threshold quantities, as defined by the Canadian Environmental Protection Act – see Section 5.4: Solid Waste Management Reduction and Recycling Specifications. Depending on the quantity at site(s), a specific Environmental Response Plan (ERP) or sections of an existing ERP may be required to address a particular chemical.
The Contractor(s) shall construct and maintain a secondary containment area surrounding storage tanks

or groups of storage tanks containing flammable and combustible materials in accordance with the British
Columbia Fire Code and A Field Guide to Fuel Handling, Transportation and Storage (MWLAP and MoFR 2002).
The Contractor(s) shall undertake daily visual inspections of all hazardous material storage areas and equipment for signs of leakage. Daily visual inspection records shall be stored on-site.
The Contractor(s) shall maintain a readily available supply of spill prevention and emergency response equipment (i.e., absorbent pads, booms, etc.) on Site at all times in effective working condition, and shall ensure that its personnel are sufficiently trained in its use to deal with environmental emergency situations.

Findings:

Fuel Storage, hazardous waste and all heavy equipment is managed at the Forest Kerr site. The Proponent is compliant with all record keeping and reporting. See Forest Kerr Inspection 2012-11-27 for more details.

Compliance: In

Types of Compliance:Construction

Requirement Description:

5.3.2 Medical Emergencies and Worker Safety-CEMP

Contractor(s) shall have trained personnel, equipment, and vehicles at Project work sites capable of providing emergency medical treatment and transportation to medical service providers in accordance with WorkSafe BC BC's Occupational Health and Safety Regulations.
AltaGas and its Contractor(s) shall restrict work during extreme weather conditions, and cease work if weather conditions are considered unsafe to workers and the public (e.g., such as during thunder and lightning storms).

Findings:

First Aid vehicles were observed at the Forest Kerr site and Mclymont. See Appendix A-Photo 0260. First Aid attendants have their own radio protocol in place that takes priority if there is ever an emergency.

Compliance: In

Types of Compliance:Construction

Requirement Description:

5.4.3 Food Waste-CEMP

All Contractor food waste and domestic garbage must be collected daily from all work and access areas, and be disposed of in an appropriate and safe manner. All food wastes must also be stored and disposed of in a manner that does not attract nuisance animals.

Findings:

All food waste is dealt with at the Forest Kerr site. No food waste was observed on the McLymont site inspection.

Compliance: In

Types of Compliance:Construction

Requirement Description:

Condition #3- Environmental Management Plans

The Proponent must retain an Independent Environmental Monitor (IEM) in accordance with section 10 of the Application to carry out the functions identified in section 10 related to oversee compliance with the CEMP and component plans (EPPs), permits, approvals and relevant environmental laws during the construction phase.

Findings:
The proponent has hired Ecodynamic Solutions (EDS) and has either one or two representatives on site at all times. EDS has been in business since 2009. See their website for more information: http://www.ecodynamics.ca/

Compliance: In

Types of Compliance: **Construction**

Requirement Description:
Condition #4-Environmental Management Plans

The Proponent must cause the IEM to submit a post construction environmental monitoring report in accordance with section 10.2.3.2 of the Application to regulatory agencies, including EAO, MFLNRO, DFO and Transport Canada.

Findings:
All reports are available on the share point site and upon request to the IEM.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:
Condition #7- Fisheries, Aquatic Habitat and Water Quality Protection
The Proponent must in accordance with the Application, section 5.6.3.6.2, require Contractor(s) to limit the footprint of disturbance to stream channels and surrounding riparian areas caused by construction of the McLymont Creek intake/weir structures, the powerhouse, switchyard, tailrace, road, bridges, and transmission line infrastructure that are proposed near and across the Iskut River, Seth Creek, and Jennifer Creek. The Proponent must require the Contractor(s) to work with the IEM on the flagging of construction boundaries.

Findings:
The proponent is currently compliant with this condition. See Appendix A- Photos 0265, 0266

Compliance: In

Types of Compliance: **Construction**

Requirement Description:
Condition #12- Fisheries, Aquatic Habitat and Water Quality Protection
The Proponent must limit the extent of the footprint disturbance above the high-water mark at the watercourse crossings by implementing DFO's Pacific Region Operational Statement for Clear-Span bridges. The Proponent must require the Contractor(s) to work with the IEM on the flagging of construction boundaries. The Proponent must prepare and provide the final designs for the clear span bridges to DFO and MFLNRO.

Findings:
The proponent is compliant with this condition. See appendix A-Photo 0265.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:
Condition #18- Fisheries, Aquatic Habitat and Water Quality Protection
The CEMP must incorporate the DFO Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters, and the Proponent must require the Contractor(s) to incorporate these and any other appropriate measures during blasting activities near fish-bearing waters.

Findings:
The proponent is compliant with this condition. See Appendix B-CEMP page 32.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:
Condition 24- Vegetation and Invasive Species Management

As part of the CEMP specifications for invasive species management, the Proponent must require and ensure that the Contractor(s) inspect and clean vehicles and equipment prior to arriving at the Project site.

Findings:
The proponent includes this requirement as part of the CEMP and ensures that each contractor is provided a copy. See appendix B-CEMP. The proponent also has a log of all vehicles that come to the site. The vehicles are stored at the Forest Kerr site. All vehicles are washed prior to transport to the site. See Appendix E-Vehicle Inspection Reports. Appendix E contains records of vehicles coming to the site for both Forest Kerr and Mclymont. A wash station is also available on site and protocols are in place for vehicles to be washed when they are changing sites. See Appendix A- Photo 0281.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:
Condition 29-Wildlife and Wildlife Habitat Protection

The Proponent must avoid vegetation clearing during construction phase) and vegetation maintenance activities during the operations phase during the breeding bird season May 1 to July 31, unless nest clearing surveys using a standardized protocol outlined in the Wildlife Management and Monitoring Plan (the Active Migratory Bird Nest Survey (EC undated) or equivalent protocol), have been completed. If vegetation clearing is conducted in the raptor nesting season (April 15 to August 15) pre-construction surveys must be conducted to ensure no nests are present in the Project footprint or within 100 m of the footprint.

Findings:
Appropriate bird nesting surveys were conducted during the breeding bird and raptor nesting season. The Forest Kerr camp/IEM has all those records available upon request. See Appendix F-Triton Letter_25Jul2012

Compliance: In

Types of Compliance: **Construction**

Requirement Description:
Condition 30-Wildlife and Wildlife Habitat Protection

In accordance with the Wildlife Management specifications in the CEMP, the Proponent must require and ensure that the Contractor(s) provide training to construction workers on how to avoid or prevent human-wildlife interactions, prior to workers participating in construction on site.

Findings:
See section 4.3.1 Environmental Orientation Training-CEMP above. The training orientation can be found attached as Appendix C-FK Orientation Rev. 7a

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition 33-Tahltan Economies

The Proponent must work with the Tahltan to develop permanent facilities for sorting mushrooms adjacent to harvesting grounds, prior to the start of Project operations.

Findings:

One site was observed on the Eskay Creek Mine Road that is now being maintained by the Forest Kerr staff. There was a safety issue regarding elderly Tahltan members being separated on the road that has lead to the project mangers attempting to find safer alternatives to allow the continuation of compliance with this condition.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition 34-Social Impact Mitigation

The Proponent must provide accommodation facilities for all non local workers at the Forrest Kerr camp. The Proponent must promote car-pooling and must establish an employee shuttle service to and from designated pick-up points to the Forrest Kerr Camp during construction and decommissioning.

Findings:

At least 3 methods of public transportation were seen on the inspection: a 14 passenger van, a full size school bus and another bus. See Appendix A Photo-0270.
The camp has enough capacity to house 400 people and currently has around 300 at any given time.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition 35-Social Impact Mitigation

The Proponent must require and ensure the its employees, contractor(s), contractor's employees and guests abide by the Proponent's:
no hunting, shooting, or fishing policy for all employees, contractors and visitors to the Project site and ancillary facilities, and
no use of company or contractor vehicles or equipment for recreational purposes.

Findings:

All employees and visitors receive the compulsory orientation training. The training outlines the condition above along with the camp rules that incorporate the possession of firearms and recreational activity around the camp. See appendices C- FK Orientation Rev. 7a and G-Forrest Kerr Camp Hotel Rules of Etiquette.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition 39-Heritage

The Proponent must inform employees and contractors and contractor's employees of the protection requirements for archaeological remains under the Heritage Conservation Act (RSBC 1996) including not altering, damaging, moving, excavating in or desecrating in any way an archaeological remain.

Findings:

All employees and visitors receive the compulsory orientation training. The training outlines this condition as seen in Appendix C-FK Orientation Rev. 7a.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Condition 42- Heritage

The Proponent and its contractors must implement the Tahltan Chance Find Procedure in coordination with Tahltan Nation and the Provincial Archaeology Branch.

Findings:

The plan is referenced and a brief excerpt is included in the employee orientation. Appendix C-FK Orientation Rev.7a. An example of one chance find is included as Appendix H-Tahltan Chance Finds Form. See Appendix A photo 0259.

Compliance: In

ACTIONS REQUIRED BY PROPONENT(S) & ADDITIONAL COMMENTS:

No follow-up action required by the proponent. Additional inspections should be completed in the spring when the snow melts.

INSPECTION CONDUCTED BY:

Signature	*Date Signed :*
Automatically populated once finalized	

ENCLOSURE(S) TO PROPONENT(S) & DESCRIPTION:

REGULATORY CONSIDERATIONS:

Environmental Assessment Office	Mailing Address: 1st Floor 836 Yates St PO Box 9426 Stn Prov Govt Victoria BC V8W 9V1	General Inquiries:(250) 356-7479 Fax:(250) 356-7440 E-mail:eaoinfo@gov.bc.ca Website:http://www.eao.gov.bc.ca

Environmental Assessment Office

Inspection Record

Project Name: Northern Rockies Secure Lan...	Inspection Status:
Certificate #: WD09-01	Inspection No:
Certificate Status: *Certified*	Inspection Date:
Region: Peace	Office: Victoria
Trigger: Planned	**Incidents of Non-Compliance Observed: No**
Non-Compliance Decision Matrix Level: Level 0 - In Compliance	Non-Compliance Decision Matrix Category: Compliance
Inspector Name(s): Justin Carlson	
Audit Record(s):	Total Non-Compliance(s):
Proponents Name: Tervita Corporation	
Proponents Contact(s): Rachael Mani	
Mailing Address: Tervita Corporation 13511 Vulcan Way, Richmond, BC Canada V6V 1K4 M: (604) 214-7000 F: (604) 214-7017	
Phone No: (604) 214-7020 or (604) 329-4849	Fax No:
Contact Email: Mani, Racheal [rmani@tervita.com]	
Location Description: 20km South of Fort Nelson	
Lat: N	Long: W
Sector: Waste Management	

Summary

MONITORING AND REPORTING REQUIREMENTS

Inspection Period:

From: 2012-10-24 **To:** 2012-12-20

Certificate or Act:

Environmental Assessment Act

Activity: Office Review

Inspection Summary:	**Response:**
An office based inspection was conducted in regards to the found non-compliance with Condition 5 of EAC WD09-01. Condition #5 states the following: 5. The Proponent must submit a report to the Executive Director on the status of compliance with the Conditions of this Certificate, and the commitments in Schedule B, four weeks prior to significant surface disturbance during construction, four weeks prior to full scale operation, and once a year following the start of operation of the proposed Project until decommissioning or as required by the Executive Director. -The last annual report our office received was dated August 10, 2009. We are missing the reports for 2010 and 2011. I also requested information on 3 commitments with the certificate as detailed below. There was no report for 2010 and 2011; the proponent provided a report for 2012 with an updated status for all of the commitments. The proponent is currently in compliance according to the information sent. A follow-up site inspection is recommended to determine compliance.	

Compliance Summary	**In**	**Out**	**N/A**	**N/D**
Automatically populated upon upload				

Inspection Details

Types of Compliance: Operation

Requirement Description:

Condition #5 of the Environmental Assessment Certificate states the following:

5. The Proponent must submit a report to the Executive Director on the status of compliance with the Conditions of this Certificate, and the commitments in Schedule B, four weeks prior to significant surface disturbance during construction, four weeks prior to full scale operation, and once a year following the start of operation of the proposed Project until decommissioning or as required by the Executive Director.

Findings:

When CCS was bought out by Tervita; Tervita was not aware of their certificate requirements. After discussing the requirements with a representative a report was compiled with all the necessary information. While the company did not submit reports for 2 years, it was determined that a singular report for 2012 would suffice. The report was submitted to me on December 20, 2012. See Appendix A.

Compliance: In

Types of Compliance: Operation

Requirement Description:

Commitment 26

As a precaution to deal with the potential for accidental release of chemicals, the Proponent will ensure to the satisfaction of the Ministry of Environment that a spill response plan is maintained at the facility to manage the surface assessment, mitigation and remediation, including notification to the BC Ministry of Environment, of any spills.

Findings:

No records were produced in regards to any spills that were reported to the Ministry of Environment. A spill response plan was provided to me. A follow-up site inspection requesting copies of the records is recommended. See Appendix B for a copy of Tervita's Spill Response Plan.

Compliance: In

Types of Compliance: Operation

Requirement Description:

Commitment 29

The Proponent will host a tour of the Northern Rockies facility for Doig River First Nation.

Findings:

A site tour was provided to the Doig River First Nation on September 1, 2009 according to the report in Appendix A.

Compliance: In

Types of Compliance: Operation

Requirement Description:

Commitment 40

The Proponent will ensure that a gate monitor is in place to detect unscheduled NORM containing waste loads in accordance with BC Ministry of Environment Permit PR-16078.

Findings:

The facility is gated and is open from 7am to 7pm. The gates are monitored and every vehicle entering the site is weighed and scanned for NORM. After hours the gates are locked and monitored by security cameras.

Compliance: In

ACTIONS REQUIRED BY PROPONENT(S) & ADDITIONAL COMMENTS:
No further follow-up required by the Proponent. Additional follow-up is recommended on behalf of the EAO to conduct a site inspection to confirm compliance.
INSPECTION CONDUCTED BY:
Signature — *Date Signed :*
Automatically populated once finalized
ENCLOSURE(S) TO PROPONENT(S) & DESCRIPTION:
Appendix A-Northern Rockies Compliance Report 2012 Appendix B- Tervita Spill Response Plan
REGULATORY CONSIDERATIONS:

Environmental Assessment Office	Mailing Address: 1st Floor 836 Yates St PO Box 9426 Stn Prov Govt Victoria BC V8W 9V1	General Inquiries:(250) 356-7479 Fax:(250) 356-7440 E-mail:eaoinfo@gov.bc.ca Website:http://www.eao.gov.bc.ca

GENERAL INSPECTION REPORT

ID: 267875
X-Ref: IDIR\DPARNO 2012/10/23 12:00:00

A

Licensee/ Tenure Holder: FLATIRON CONSTRUCTORS CANADA LIMITED
UNIT 404 44550 SOUTH SUMAS ROAD
CHILLIWACK BC V2R5M3

Operator/Contractor:
In Attendance:

Tenure (type/no): /

Site ID: LT_TO
Inspection Date (yyyy/mm/dd 24:mm): 2012/10/23 12:00
Regional Inspection: ☐
Location (optional): Gwenn Lake Hydro widening

Inspection Method		Area Inspected
B		
Ocular:	☐	**Area Inspected:**
Recce:	☒	**Location Inspected:** Segment A-B Howarth Creek . Within Alignment Sheet 10 of 63. GPS @ N 49 57.853 W 120 46.870 .
Detailed Survey:	☐	
Admin/Office:	☐	

C **Site or Activity Status:**

D

Alleged Non-Compliance: ☐
Further Research: ☐

E

Inspector: Don Parno
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by:
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☐ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☒ Fax: ☐ Mail: ☐ Hand Delivered: ☐

File # File #

GENERAL INSPECTION REPORT

ID: 267875
X-Ref: IDIR\DPARNO 2012/10/23 12:00:00

A

Licensee/ Tenure Holder: FLATIRON CONSTRUCTORS CANADA LIMITED
UNIT 404 44550 SOUTH SUMAS ROAD
CHILLIWACK BC V2R5M3

Tenure (type/no): /

Site ID: LT_TO
Inspection Date (yyyy/mm/dd 24:mm): 2012/10/23 12:00
Regional Inspection: ☐
Location (optional): Gwenn Lake Hydro widening

Operator/Contractor:
In Attendance:
Compliance Summary Comments:

There was a complaint regarding the practice of grubbing out all vegitation. I visited the GPS location given from the complainant.

The area appeared reported to be within the Land Act Licence of Occupation #241815 the as per Map 10 of 63.

Although there was snow on the ground during this inspection, there appeared to be grubbing to minieral soil as reported, within the new, widened Right of Way (ROW). The grubbing in the area reported was extensive (nearly 100%) and this treatment appeared consistent along the length of the ROW. There were however, two areas noted (North and south of the report area) ,where the side slope was over 40% and the extent of grubbing/mineral soil exposure appeared to be much lower. These areas had stumps remaining in ground with some shrub cover and duff layers intact.

There was no contravention found regarding forestry legislation at this time.

I believe this complaint should be considered within the context of the commitments in the Environmental Assessment Certificate # E09-03. Toward that end, this file, including my inspection report has been forwarded to the Environmental Assessment Office and MFLNRO Project manager for consideration.

If there are any questions regarding this inspection please call my office at 250 378-8454.

Don Parno , RPF
Resource Compliance Officer
Cascades Field Unit (Merritt)
Thompson Okanagan Region
Ministry of Forests, Lands and Natural Resource Operations
Telephone: (250) 378-8454

E

Inspector: Don Parno
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by:
Signature: X
(Signing does not imply agreement with findings)

GENERAL INSPECTION REPORT

ID: 270158
X-Ref: IDIR\FJWAHLST 2013/01/17 14:00:00

A

Licensee/ Tenure Holder: FLATIRON CONSTRUCTORS CANADA LIMITED
UNIT 404 44550 SOUTH SUMAS ROAD
CHILLIWACK BC V2R5M3

Tenure (type/no): /

Site ID: SCR EAO
Inspection Date (yyyy/mm/dd 24:mm): 2013/01/17 14:00
Regional Inspection: ☐
Location (optional): Interior to Lowermainland Transmission Project

Operator/Contractor:
In Attendance: Environmental Manager Daniel JORDAN
Environmental Officer Chris PARKS

B

Inspection Method		Area Inspected
Ocular:	☒	**Area Inspected:**
Recce:	☒	**Location Inspected:** Access to tower 4137
Detailed Survey:	☐	Tower 5003 location
Admin/Office:	☐	

C

Site or Activity Status:

Review of construction management practices Flatiron-Graham utilizes with Chris PARKS, Environmental Assessment Office compliance and enforcement Officer and Daniel JORDAN of Flatiron-Graham.

D

Alleged Non-Compliance: ☐
Further Research: ☐

Compliance Summary Comments:

No Legislative non compliance issues were observed during this inpsection.

No non conformances with Environmental Assessment Certificate Conditions were observed during this inspection.

E

Inspector:
Signature: John Wahlstrom

REGISTERED FOREST TECHNOLOGIST PROVINCE OF BRITISH COLUMBIA FREDRIC JOHN WAHLSTROM NO. 1326

Received by:
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☒ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☒ Fax: ☐ Mail: ☐ Hand Delivered: ☐

File # 23040-13/2013 File #

GENERAL INSPECTION REPORT

ID: 270640
X-Ref: IDIR\KBROENSP 2012/09/14 10:00:00

A

Licensee/ Tenure Holder: COLUMBIA POWER CORPORATION
SUITE 200, 445 13TH AVENUE
CASTLEGAR BC V1N1G1

Operator/Contractor:
In Attendance: Wendy Horan,
Amber Ashenhurst

Tenure (type/no): /

Site ID: CEP_KB
Inspection Date (yyyy/mm/dd 24:mm): 2012/09/14 10:00
Regional Inspection: ☐
Location (optional): Waneta Expansion Project Corporation, Trail

Inspection Method		Area Inspected
B		
Ocular:	☐	**Area Inspected:**
Recce:	☒	**Location Inspected:** Work Sites A1, B - Machinery Wash Station, D1, D3, D4, Dredging Site at Intake, Recovery/ Settling Pond, walk about the Dam Construction site including Spillway access road, Intake hole construction, and Surface Water Treatment Plants.
Detailed Survey:	☐	
Admin/Office:	☐	

C

Site or Activity Status:
Construction and related activities active and ongoing.

D

Alleged Non-Compliance: ☐
Further Research: ☐

E

Inspector: Keith Roenspiess
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Justin Carlson
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☒ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☒ Fax: ☐ Mail: ☐ Hand Delivered: ☐

File # File #

A

Licensee/ Tenure Holder: COLUMBIA POWER CORPORATION

SUITE 200, 445 13TH AVENUE
CASTLEGAR BC V1N1G1

Tenure (type/no): /

Site ID: CEP_KB
Inspection Date (yyyy/mm/dd 24:mm): 2012/09/14 10:00
Regional Inspection: ☐
Location (optional): Waneta Expansion Project Corporation, Trail

Operator/Contractor:
In Attendance: Wendy Horan,
Amber Ashenhurst

Compliance Summary Comments:

An inspection was completed of the Waneta Expansion Project. The project is located on the Waneta Highway approximately 10 kilometers south of Trail.

Condition #15 of the Environmental Assessment Certificate was inspected.
Condition #15 states the following: The Proponent must implement the Environmental Management Plan, Environmental Work Plans and Task Plans to the satisfaction of the Regional Managers, Environmental Protection and Stewardship Divisions, Ministry of Environment, the Comptroller and the District Manager, Ministry of Transportation.

This is a follow-up inspection to inspection reports 257336 and 261491.

Upon arrival the first area of inspection was that of Worksite D3 and D4 where the company and contractors have offices and storage facilities. The yard was well organised and signed. All liquid storage areas have appropriate storage containers as well as sufficient spill protection in case of leaks. Although I did not check their contents, Spill kits were adequately dispersed in appropriate areas and identified on a worksite map. Inspection of contents could be conducted on a future inspection.

Previous inspection reports (ID#'s 257336 & 261491) indicated that under "Traffic Management" in the Environmental Work Plan(EWP) a requirement to pave the gravel entrances to Worksites D1, D3 and D4 appears not to be done, has been rectified and are now paved up to the site entrances. I have no further concerns regarding this requirement at this time.

The requirement noted in these inspections regarding "Public Safety Management" in the EWP for Worksite A1, I feel has been met. The area within Worksite A1 is used for the sole purpose of storing coarse to fine gravel removed from the construction site and poses a low risk to anyone inside this area. As well the site is in an area with relatively low public use. That said there is still a requirement to secure the area from random public intrusions. For the area in question, a fence has been erected encompassing all sides reasonably accessible by the public. There is a section of the perimeter that faces the Columbia River and has a steep bank leading to the river. It is inaccessible to motorized traffic and there is no evidence and a very low likelihood that pedestrian traffic use this area as access. So in place of a fence on this section of the property the option of placing "No Trespassing" notifications was exercised and signs were erected instead.

Worksite"B" was visited where there is a machine washpad for equipment to be rinsed to mitigate the spread of invasive plants around the worksite as a whole. There had been minimal use to date but it was explained that during the present phase of construction there was little use for the washpad and in the coming phases trucks will be more engaged increasing the utilization of the washpad.

I inspected the dredging operation and the settling pond and from my observations and understanding, this ongoing operation was working acording to specifications. I had no issues at this time.

I was made aware of some issues around high water output and that the rip rap placed beside the access road on the outlet side of the dam as it was being undermined as the water had enough pressure to remove the rock which supported the bank and road above. The proponent came

E

Inspector: Keith Roenspiess
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Justin Carlson
Signature: X
(Signing does not imply agreement with findings)

A

Licensee/ Tenure Holder: COLUMBIA POWER CORPORATION

SUITE 200, 445 13TH AVENUE
CASTLEGAR BC V1N1G1

Tenure (type/no): /

Site ID: CEP_KB

Inspection Date (yyyy/mm/dd 24:mm): 2012/09/14 10:00

Regional Inspection: ☐

Location (optional): Waneta Expansion Project Corporation, Trail

Operator/Contractor:

In Attendance: Wendy Horan,
Amber Ashenhurst

up with a novel idea which appears to have solved the problem of loosing the rip rap downstream. They constructed a net of Steel cable and chain to consolidate the surface boulders to hold them together using anchors to form a large mat. Under conditions of extreme flow the water is able move beneath this mat while the net holds the rock in place. So far it has proved effective.

E

Inspector: Keith Roenspiess
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Justin Carlson
Signature: X
(Signing does not imply agreement with findings)

BRITISH COLUMBIA

GENERAL INSPECTION REPORT

ID:261491

A **Licensee/ Tenure Holder:**
Columbia Power Corporation
(Waneta Expansion Project Corporation)

Tenure (type/no): /
Site ID: SCR EAO
Inspection Date (yyyy/mm/dd 24:mm):2012/03/01
Regional Inspection: ☐
Location (optional):

Operator/Contractor:
In Attendance: FLNRO and CPC representatives

	Inspection Method		Area Inspected
B	**Ocular:**	☒	**Area Inspected:**
	Recce:	☒	**Location Inspected:**
	Detailed Survey:	☐	
	Admin/Office:	☐	

C **Site or Activity Status:**

D Alleged Non-Compliance: ☐
Further Research: ☐

Compliance Summary Comments:

An inspection of the Waneta Expansion project was conducted to determine compliance with the EA Certificate and associated commitments. The inspection results are as follows.

Commitment #11 - The proponent must prepare or cause to be prepared an Environmental Management Plan (EMP), Environmental Work Plans (EWPs) and Task Plans (TPs).An EMP has been completed as well as associated EWPs. The Task Plans are prepared as required to facilitate the execution of the work or when the Environmental Monitor (EM) or the proponent deems it necessary in order for specific works or tasks to be executed in a prescribed manner that is consistent with the associated EWP and other requirements. Several EWPs were reviewed:

1) Public Safety Management EWP (Rev.2)- The worksite at site A1 was not a fully secured worksite as it was only fenced on three sides with the area that backs on to the riverbank being fully exposed. This is not compliant with the Plan requirements as well as those detailed in the OERC that specifies that the "contractor shall erect fences , post signs, and control access points to warn the public of construction activities and to exclude members of the public and unauthorized personnel from Worksites". Any fencing needs to be compliant with the Trespass Act as detailed in the OERC. There is evidence of a well used trail along the fenced and unfenced sections of this site and thus there is potential for the public to easily access this site. This is a definite safety concern given the unsecured perimeter and the heavy vehicle traffic and machinery activity on site. The previous inspection conducted on Sept. 21, 2011 also identified this issue.

2) Traffic Management EWP (Rev.3) - this plan has measures that are employed in conjunction with the Public Safety Management Plan so there is some necessary overlap between the two plans. This plan called for all site entrances off Highway 22A to be paved up to the site gate but at sites D1, D3/D4, and A1 this appears to have not been done. It was also observed that water and sediment run off were collecting on the highway due too ineffectual drainage control at the Waneta-Nelway road junction with the

E **Inspector:** Tony Carroll
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by:
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☐ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☒ Fax: ☐ Mail: ☐ Hand Delivered: ☐

File # File #

A	Licensee/ Tenure Holder: Columbia Power Corporation (Waneta Expansion Project Corporation)	Tenure (type/no): /
		Site ID: SCR EAO
		Inspection Date (yyyy/mm/dd 24:mm): 2012/03/01
		Regional Inspection: ☐
		Location (optional):
	Operator/Contractor: In Attendance: FLNRO and CPC representatives	

(Continued)

highway. This appears to be most prevalent during snow melt periods or period of heavy rains and may be better managed through more effective ditching, road grading, possible culvert installation.

4) Erosion, Sediment, and Drainage Control EWP - Numerous instances of silt fencing, as well as some perimeter ditching, were observed around work areas as a mitigation measure and appeared to be functioning appropriately. In the case of Worksite A1, the silt fencing requirement was not complete especially given that fencing along the perimeter has not been completed. To aid in sediment/erosion control the EWP also requires some work site entrances to be paved but there instances of this having not been done were observed. Also, as mentioned previously, it was observed that water and sediment were collecting on the highway due to ineffectual drainage control at the Powerplant Access road junction with the highway. This may be managed through more effective ditching, road grading, and possible culvert installation.

At worksite B a wash pad has been installed as per the EWP for the removal of dirt, grease, and oil from equipment. This wash pad was constructed in the fall and is under a foot of snow. It is unclear how this mitigation measure has been employed effectively given the absence of a wash pad during a significant portion of the project and the apparent lack of use of the wash pad.

5) Wildlife Protection EWP - There are listed herptile species in the project area. A snake hibernacula has been marked and identified in the field using snow fencing to delineate the area and allow passage of snakes while restricting personnel access. The second EPZ was established on October 17, 2012 and delineated using snow/silt fencing. In addition, to prevent animals entering the work sites fencing is to be employed around the sites but site A1 has not been fenced along the river, which would be an obvious animal travel corridor. In order to prevent wildlife access to worksites the EWP specifies that site fencing may serve to prevent wildlife from the entering the worksites as specified in the Work Isolation EWP and Sediment and Drainage Control EWP. However, site A1 perimeter has not been fenced along the river which would be an obvious animal travel corridor.

6) Noxious and Nuisance Weed Control EWP - Equipment is to be cleaned before entering sites and before leaving sites to mitigate spread of invasive plants. According to project personnel the wash pad at Worksite B was constructed for equipment cleaning but as previously mentioned it was constructed relatively recently and shows no signs of recent use. It is unclear how this mitigation measure has been employed effectively given the absence of a wash pad during a significant portion of the project and the apparent lack of use of the wash pad. The Owner was not able to provide a clear response as to how or whether this mitigation measure was met prior to construction of the wash pad.

E	Inspector: Tony Carroll	Received by: Tim Hicks
	Signature: X	Signature: X
	(I certify that this inspection conforms to Ministry of Forests' compliance procedures)	(Signing does not imply agreement with findings)

BRITISH COLUMBIA

GENERAL INSPECTION REPORT

ID: 261491

A

Licensee/ Tenure Holder:
Columbia Power Corporation
(Waneta Expansion Project Corporation)

Operator/Contractor:
In Attendance: FLNRO and CPC representatives

Tenure (type/no): /
Site ID: SCR EAO
Inspection Date (yyyy/mm/dd 24:mm): 2012/03/01
Regional Inspection: ☐
Location (optional):

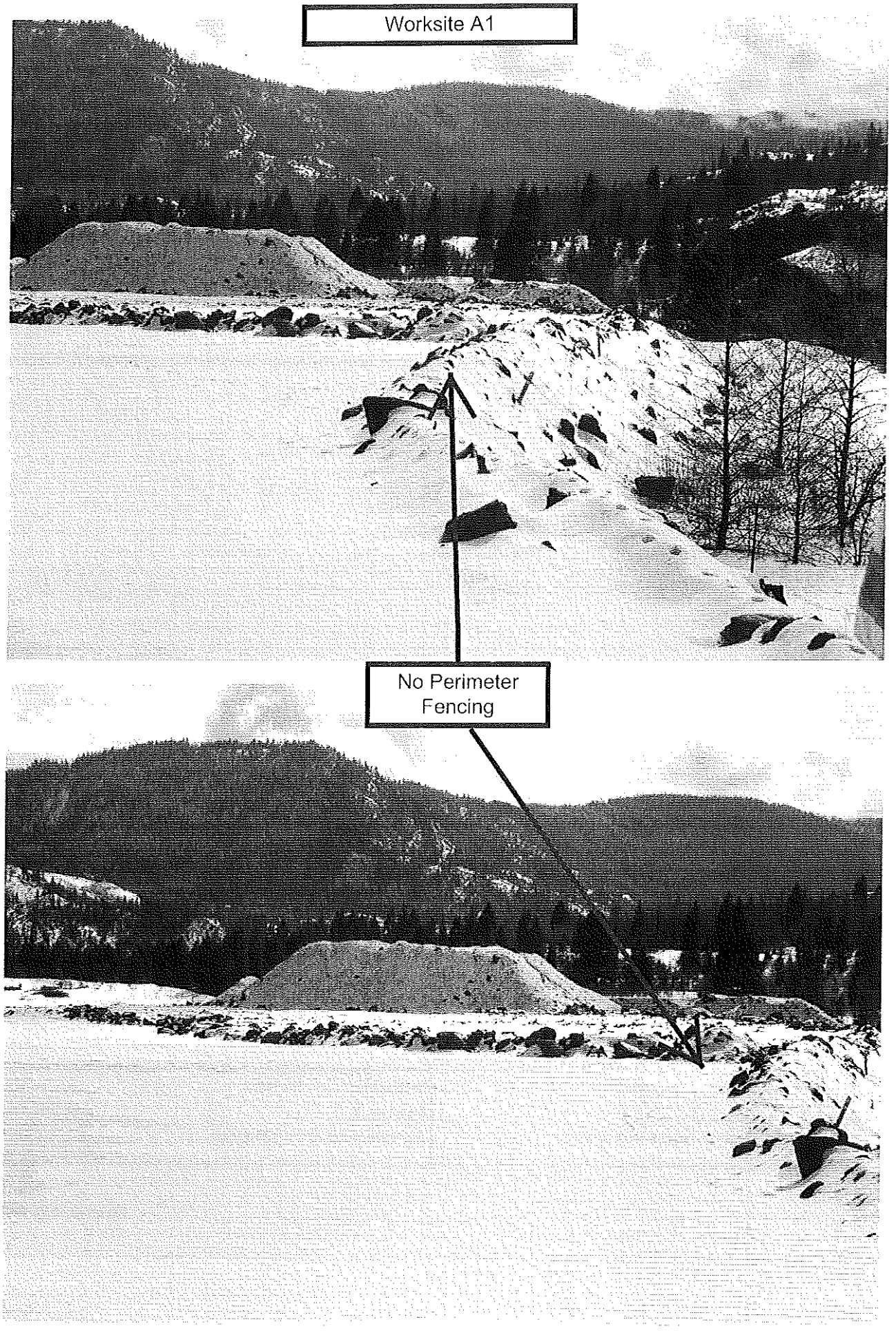
(Continued)

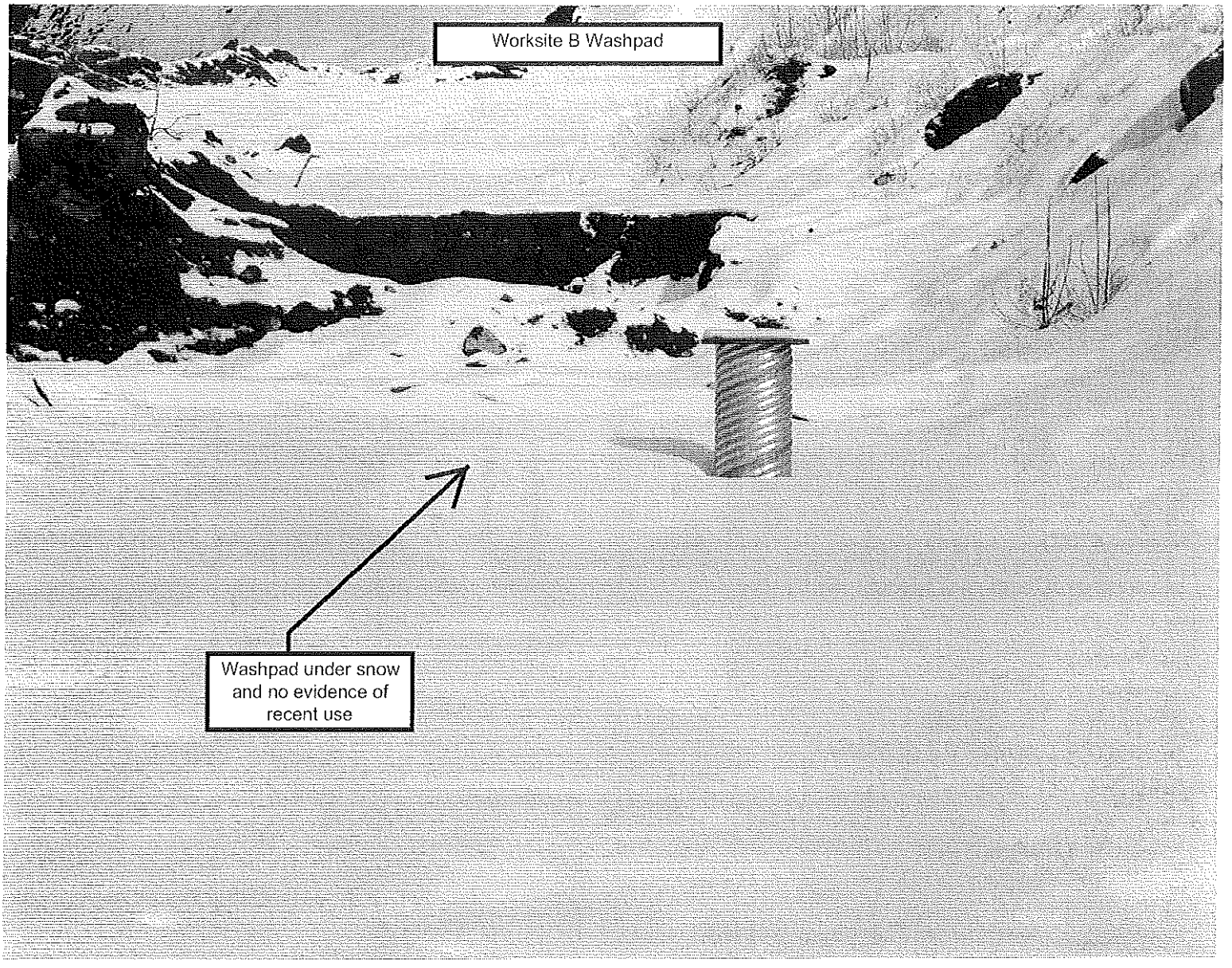
Commitment #26 - The proponent will provide $350,000 over 7 years for a Terrestrial Compensation Program to compensate for non-mitigatable terrestrial effects. A steering committee will assess applications for funding based on submission criteria. The evaluation criteria will be linked to impacts created by the Project. At time of inspection, the steering committee had received proposals and were scheduled to meet March 6, 2012.

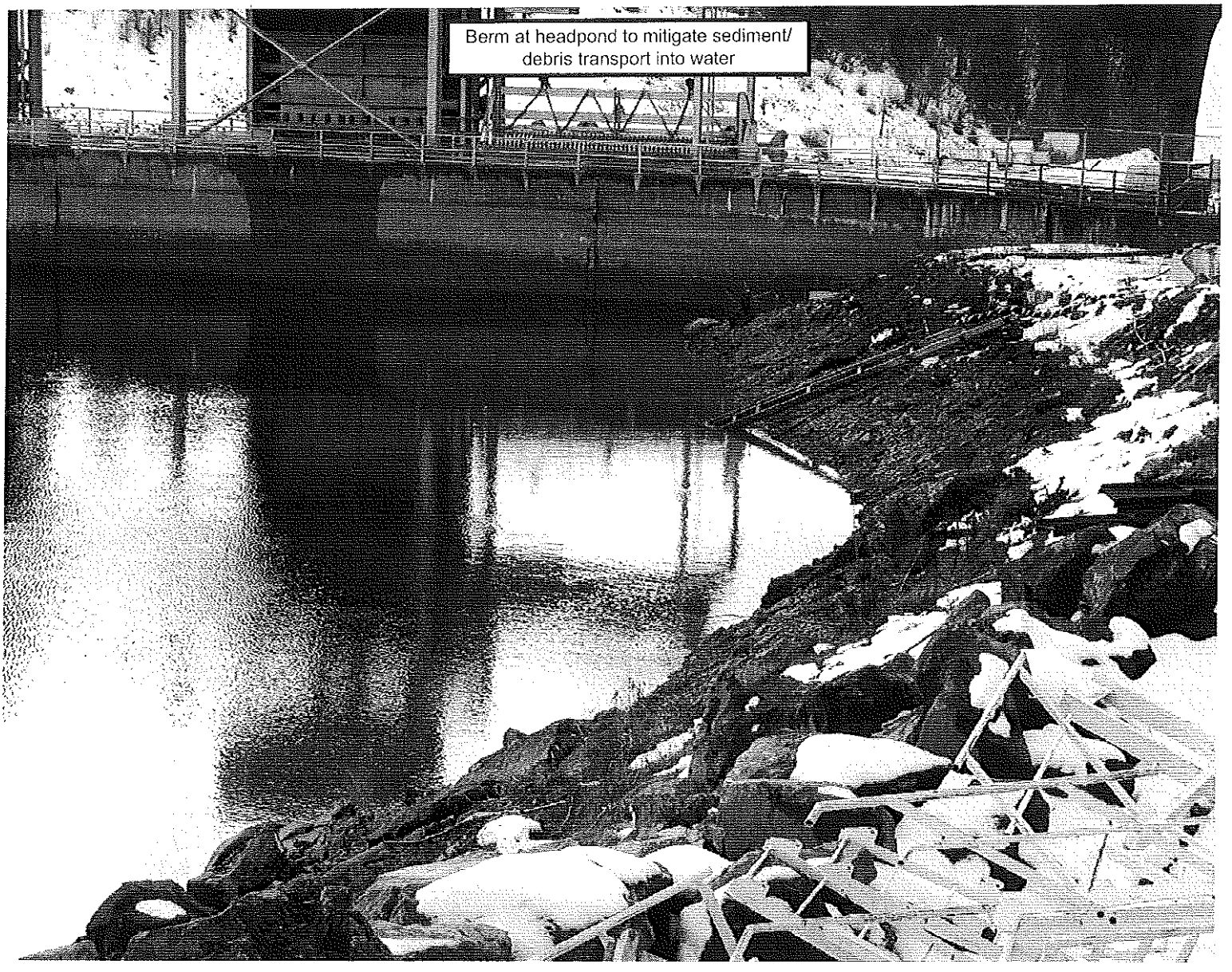
E

Inspector: Tony Carroll
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

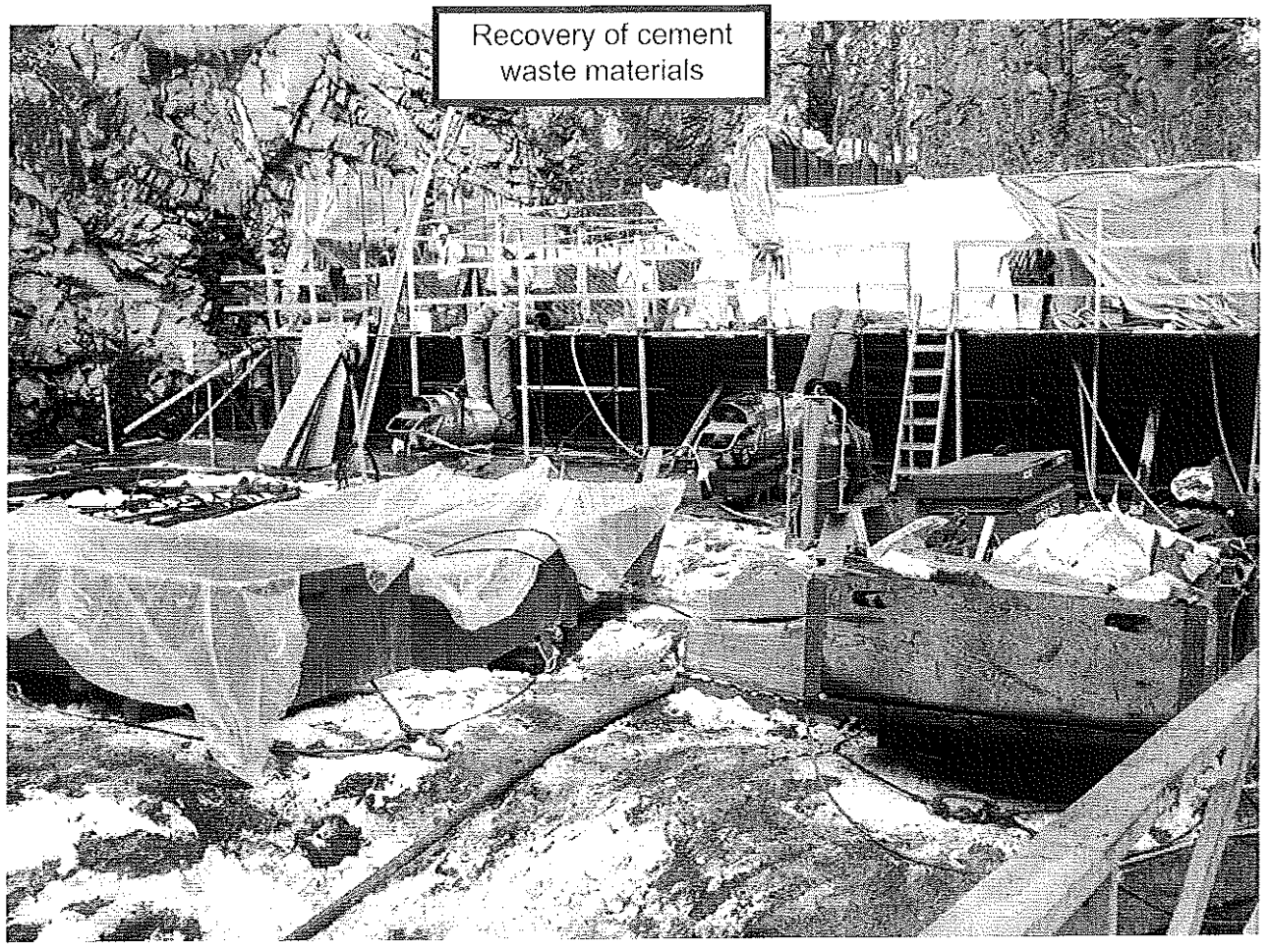
Received by: Tim Hicks
Signature: X
(Signing does not imply agreement with findings)


Worksite A1
No Perimeter Fencing


Worksite B Washpad
Washpad under snow and no evidence of recent use


Berm at headpond to mitigate sediment/
debris transport into water

Recovery of cement waste materials



s.22

BRITISH COLUMBIA

GENERAL INSPECTION REPORT

ID:262450

A

Licensee/ Tenure Holder:
BC Hydro

Tenure (type/no): /
Site ID: SCR EAO
Inspection Date (yyyy/mm/dd 24:mm):2012/03/27
Regional Inspection: ☐
Location (optional):

Operator/Contractor:
In Attendance: FLNRO and NTL Project Representatives

Inspection Method		Area Inspected
B	**Ocular:** ☒ **Recce:** ☒ **Detailed Survey:** ☐ **Admin/Office:** ☐	**Area Inspected:** **Location Inspected:**

C **Site or Activity Status:**

D
Alleged Non-Compliance: ☒ Yes
Further Research: ☐

Compliance Summary Comments:

An inspection of the Northern Transmission Line project was conducted to determine compliance with the EA Certificate and associated commitments. The inspection results are as follows.

Commitment #45 - Prior to the commencement of construction activities BC Hydro will implement Construction Environmental Management Plan (CEMP). A CEMP has been developed and provided to the appropriate agencies, governments, and First Nations.

Commitment #47 - Development and Implementation of a Air Quality and Dust Control Plan. Requirements for this Plan are included in both the CEMP and specific Environmental Protection Plans (EPPs). Slash burning was taking place on project segments 1B and 5. The required Burn Registration Numbers had been obtained and the burning that was observed at time of inspection appeared to be adhering to the venting index requirements of the Open Burning Smoke Control Regulation. While the CEMP states that burning is not anticipated during construction, and the EPP states burning will be conducted where appropriate, it is apparent that burning of land clearing debris will be required on a significant scale as numerous large debris piles were observed along the sections inspected. Given the remoteness of many areas along the transmission line, and the lack of other methods such as chipping or increased focus on wood utilization, the need for increased employment of slash burning should have been readily identifiable during the project development stage. In segment 5, the contractor was very proactive in cooperation and communication with the local heli-skiing tour operator to help mitigate impacts of open-burning on the skiing operation and the experience of the guests.

Commitment #49 - Sediment and Erosion Control Plan. Requirements for this Plan are included in both the CEMP and specific Environmental Protection Plans (EPPs).

Segment 1 - Excavated soils as a result of crossing the slough have been deposited in the channel. The CEMP states that excavated

E

Inspector: Tony Carroll
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by:
Signature: X
(Signing does not imply agreement with findings)

Attachment Description:
Checklist: ☐ Digital Image: ☐ Other: ☐
Checklist:
Other:

Delivery Method:
Email: ☒ Fax: ☐ Mail: ☐ Hand Delivered: ☐

File # File #

A

Licensee/ Tenure Holder:
BC Hydro

Operator/Contractor:
In Attendance: FLNRO and NTL Project Representatives

Tenure (type/no): /
Site ID: SCR EAO
Inspection Date (yyyy/mm/dd 24:mm): 2012/03/27
Regional Inspection: ☐
Location (optional):

(Continued)

soils must be stored or stockpiled outside of the riparian area. It is recommended that this soil be removed prior to spring melt and runoff to prevent sedimentation and avoid impacts to water quality and aquatic environment.

Segment 1B - South Allard Branch is an existing road that is being upgraded. Stream 36/2A is indicated as S4 on map provided but the map shown by Golder during the inspection indicates a S6 stream but stream table indicates S4 stream. This discrepancy needs to be reconciled to determine if it is actually a S4 or S6 stream as this will determine type of crossing structure required.

Stream 37/4A is mapped as S4 fish stream requiring installation of temporary 1 meter X 6.1 meter wood box culvert. There is already a CMP in place so it may be necessary to consider the cost/benefit to the stream of removing the CMP and installing a WBC and then removing the WBC versus leaving the CMP place until it is removed

Stream 37/4C mapped as S3 fish stream requiring a 1 meter X 6.1 meter wood box culvert. The road has been brushed out and heavy machinery including a CAT has crossed back and forth through the stream creating tracks in the stream and potentially introducing sediment into the stream. The contractor indicated that the machine operator was not aware of the stream location which indicates a lack of diligence in terms of environmental monitoring and crew communication.

Access Road Spur 23/3is new construction that junctions onto West Kalum Forest Service Road. At time of inspection the road was heavily rutted and saturated with no rock capping. There was water and sediment running down the road surface toward the FSR. There was no effective sediment control measures or culvert installed at the junction with FSR which is in contravention of the Forest Service Road Junction Permit.

Access road 38/1 is situated in between a S3 and S2 stream and it appears the RMAs and possibly sections of the RRZs overlap the road section. There is concern for the potential impacts on the streams due to clearing and road construction. This concern was discussed with BC Hydro and Golder representatives. This section of road construction should be a high priority for on-site environmental monitoring during work activities and was discussed with project representatives at time of inspection.

Segment 5 - Access Road Branch 341/4 is a road with a steep grade from highway down toward Echo Lake. There were numerous issues and concerns with sediment and drainage control observed: long ditch runs that increase water velocity and thus likelihood of erosion, the parent material and evidence of saturation during rain events indicates that the ditch lines may need to be armoured to mitigate erosion and runoff velocity, the steep exposed slopes increase erosion risk and no mitigation measures were in place, and there is potential for runoff to be diverted into Echo Lake especially considering that the water flow on the road is being funnelled down to the culverts at the bottom of the hill directly adjacent to the lake.

Access Road Branch 335/3 was extremely saturated with heavy rutting and fill slope material was observed to be actively moving

E

Inspector: Tony Carroll
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Tim Hicks
Signature: X
(Signing does not imply agreement with findings)

A

Licensee/ Tenure Holder:
BC Hydro

Operator/Contractor:
In Attendance: FLNRO and NTL Project Representatives

Tenure (type/no): /
Site ID: SCR EAO
Inspection Date (yyyy/mm/dd 24:mm): 2012/03/27
Regional Inspection: ☐
Location (optional):

(Continued)

and impacting sediment fencing and riparian area. The sediment fencing was not being maintained and hay bales had been haphazardly put in the ditch line without being staked or properly aligned and located. There is potential along this section for sediment to impact the stream and riparian area and therefore diligent maintenance and oversight will be required.

Commitment #51 - Spill Prevention and Emergency Response Plan. Requirements for this Plan are included in both the CEMP and specific Environmental Protection Plans (EPPs). The camp at Bob Quinn Lake has large fuel storage tanks but does not appear to have secondary containment system in case of a fuel leak and there is only one lock block providing a barrier to prevent damage to the fuel tanks which is inadequate. A general spill response equipment cache is required to be located at camp or staging facilities but the cache at Bob Quinn camp did not have the full complement of equipment as specified in the EPP.

Commitment #52 - Material Storage, Handling, and Waste Management Plan. Requirements for this Plan are included in both the CEMP and specific Environmental Protection Plans (EPPs). Food waste at employee camps is to be stored in appropriate wildlife-proof containers but two regular type garbage cans were observed at the camp that were used for garbage. This should be replaced with appropriate containers in order to reduce potential human/wildlife encounters.

Commitment #53 - Fish Habitat Protection and Mitigation Plan. Requirements for this Plan are included in both the CEMP and specific Environmental Protection Plans (EPPs). Concerns identified have been previously mentioned under Sediment and Erosion Control (see previous comments) and focus on poor sediment and erosion control practices or absence of mitigation measures, inconsistent mapping and identification of fish habitat, heavy machinery crossing fish stream, machine operator unaware of location of fish streams, and absence of environmental monitoring and oversight. The following is a summary of habitat/protection concerns:

Segment 1B - South Allard Branch is an existing road that is being upgraded. Stream 36/2A is indicated as S4 on map provided but the map shown by Golder during the inspection indicates a S6 stream but stream table indicates S4 stream. This discrepancy needs to be reconciled to determine if it is actually a S4 or S6 stream as this will determine type of crossing structure required.

Stream 37/4A is mapped as S4 fish stream requiring installation of temporary 1 meter X 6.1 meter wood box culvert. There is already a CMP in place so it may be necessary to consider the cost/benefit to the stream of removing the CMP and installing a WBC and then removing the WBC versus leaving the CMP place until it is removed

Stream 37/4C mapped as S3 fish stream requiring a 1 meter X 6.1 meter wood box culvert. The road has been brushed out and heavy machinery including a CAT has crossed back and forth through the stream creating tracks in the stream and potentially introducing

E

Inspector: Tony Carroll
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Tim Hicks
Signature: X
(Signing does not imply agreement with findings)

A

Licensee/ Tenure Holder:
BC Hydro

Operator/Contractor:
In Attendance: FLNRO and NTL Project Representatives

Tenure (type/no): /
Site ID: SCR EAO
Inspection Date (yyyy/mm/dd 24:mm): 2012/03/27
Regional Inspection: ☐
Location (optional):

(Continued)

sediment into the stream. The contractor indicated that the machine operator was not aware of the stream location which indicates a lack of diligence in terms of environmental monitoring and crew communication.

Access road 38/1 is situated in between a S3 and S2 stream and it appears the RMAs and possibly sections of the RRZs overlap the road section. There is concern for the potential impacts on the streams due to clearing and road construction. This concern was discussed with BC Hydro and Golder representatives. This section of road construction should be a high priority for on-site environmental monitoring during work activities and was discussed with project representatives at time of inspection.

Commitment #54 - Ecosystems and Vegetation Management Plan. Requirements for this Plan are included in both the CEMP and specific Environmental Protection Plans (EPPs). This plan specifies mitigation measures to help prevent the spread of invasive plant species and noxious weeds and has some necessary overlap with the Agricultural Site Access and Reclamation Plan. This plan specifies that machinery be inspected prior to mobilization to site for weeds and/or seeds and cleaned if required. The contractor and environmental monitor were unable to specify what invasive plants are being managed for which makes implementation of the practice difficult if workers are not aware of what they are attempting to manage for. This was especially a problem in areas of the project that are within the Agricultural Land Reserve that have additional mitigation measures for invasive plant management as specified in the Agricultural Site Access and Reclamation Plan. When inspecting operating areas within the ALR the contractor and the environmental monitor were unaware they were operating in the ALR and of the mitigation measures that are applicable when doing so. In order to ensure that this Commitment is greater diligence is required to ensure the requirements are clearly understood, communicated to the appropriate personnel, monitored for compliance, and documented for oversight and inspection purposes.

Commitment 66 - Construction contractors will be required to employ qualified environmental monitors to evaluate and report on compliance with the construction EMP, Environmental Monitoring Program, and EPPs.

On Segment 1B the on-site environmental monitor was a very junior employee with limited direct, formal environmental background and training who was performing the roles of a monitor as well as completing the weekly environmental reports. Based on discussions with contractor and project personnel this position is meant to be a mentorship under the umbrella of the environmental program. In this instance, Cambria Gordon was the company responsible for providing oversight and mentorship but it appears that a lot of the responsibility has been downloaded onto a very enthusiastic and willing, albeit junior, employee who

E

Inspector: Tony Carroll
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Tim Hicks
Signature: X
(Signing does not imply agreement with findings)

A

Licensee/ Tenure Holder:
BC Hydro

Tenure (type/no): /
Site ID: SCR EAO
Inspection Date (yyyy/mm/dd 24:mm):
Regional Inspection: ☐
Location (optional):

Operator/Contractor:
In Attendance: FLNRO and NTL Project Representatives

(Continued)

would likely at present not meet the standard of a Qualified Environmental Professional.

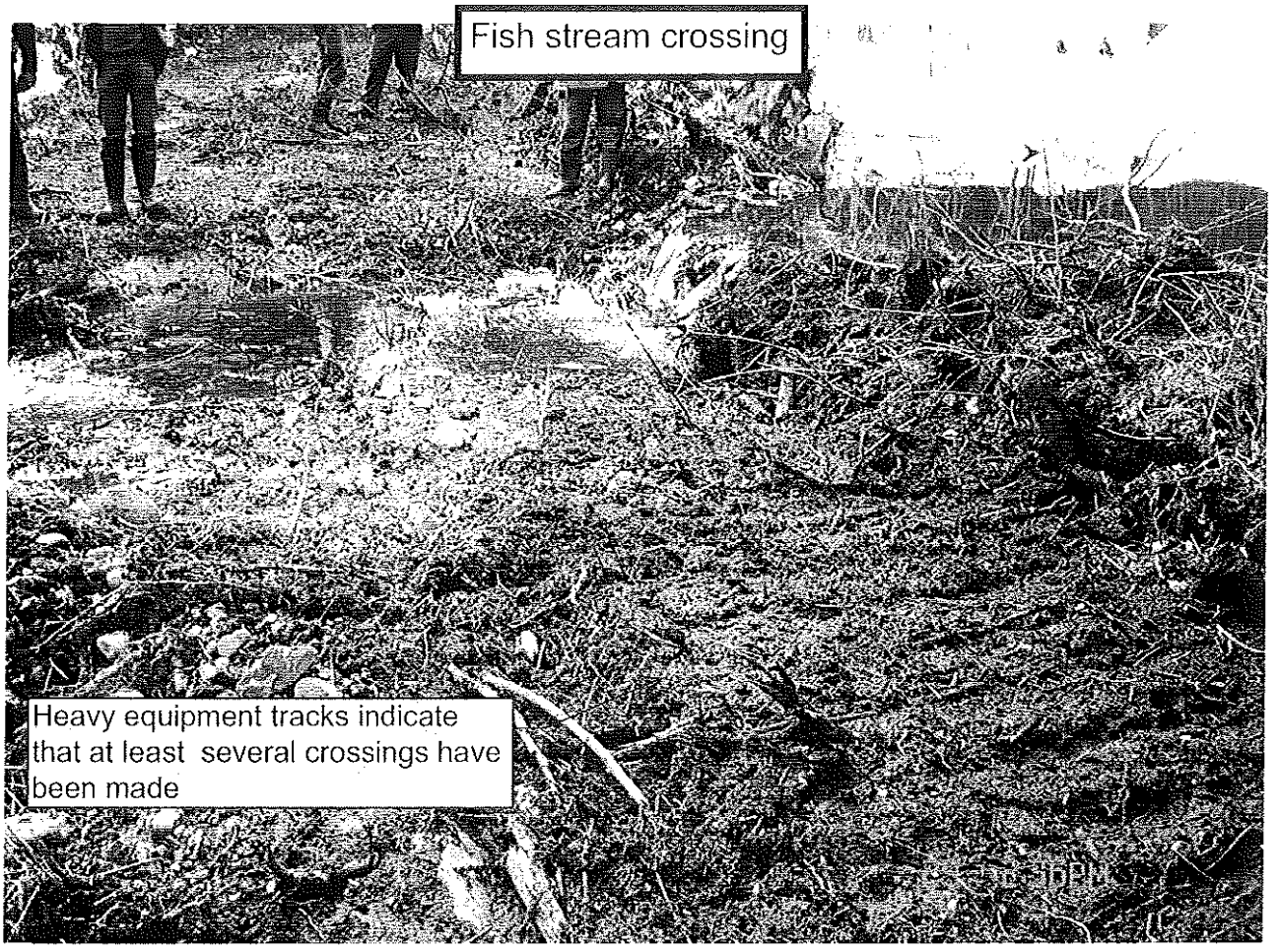
Commitment 67 - BC Hydro must develop and implement an Environmental Monitoring Program.
A monitoring program has been developed but the implementation has not been fully effective. For example, on Segment 5 an environmental monitor had not been on site for 10 days according to construction personnel which is problematic given that the CEMP and EPP state that for the majority of monitoring criteria inspections must be done a minimum of once per week. In the case of sediment and erosion the CEMP specifies inspection frequency as no less than once a week and as required during periods of high precipitation which, in the cases of access Road Branch 341/4 and access Road Branch 335/3, does not appear to have been met. Also, given the lack of knowledge about the Agricultural Site Access and Reclamation Plan and its requirements it is doubtful that the requirement of three inspections per week was met as well as the once a week inspection for Ecosystems and Vegetation Management.

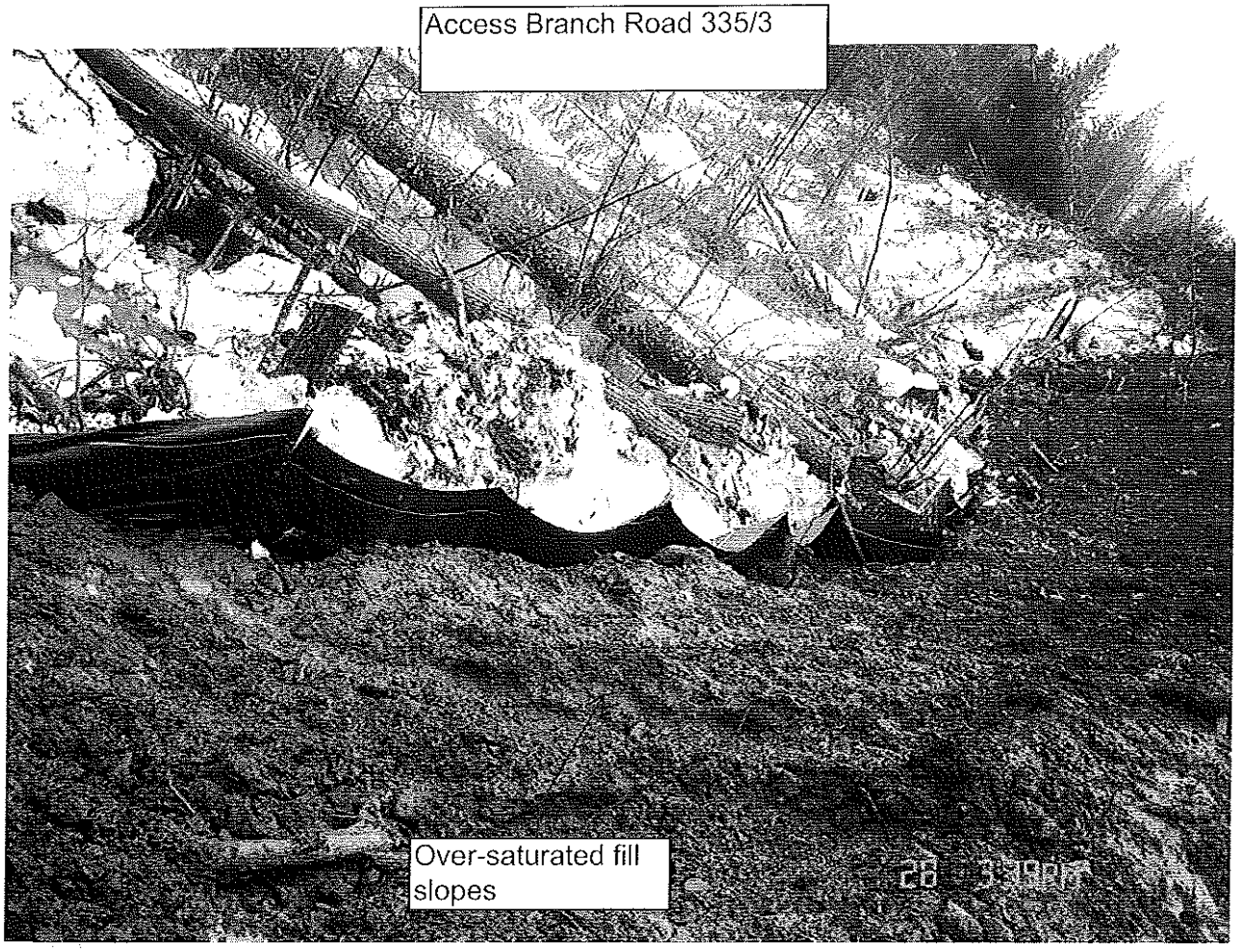
E

Inspector: Tony Carroll
Signature: X
(I certify that this inspection conforms to Ministry of Forests' compliance procedures)

Received by: Tim Hicks
Signature: X
(Signing does not imply agreement with findings)

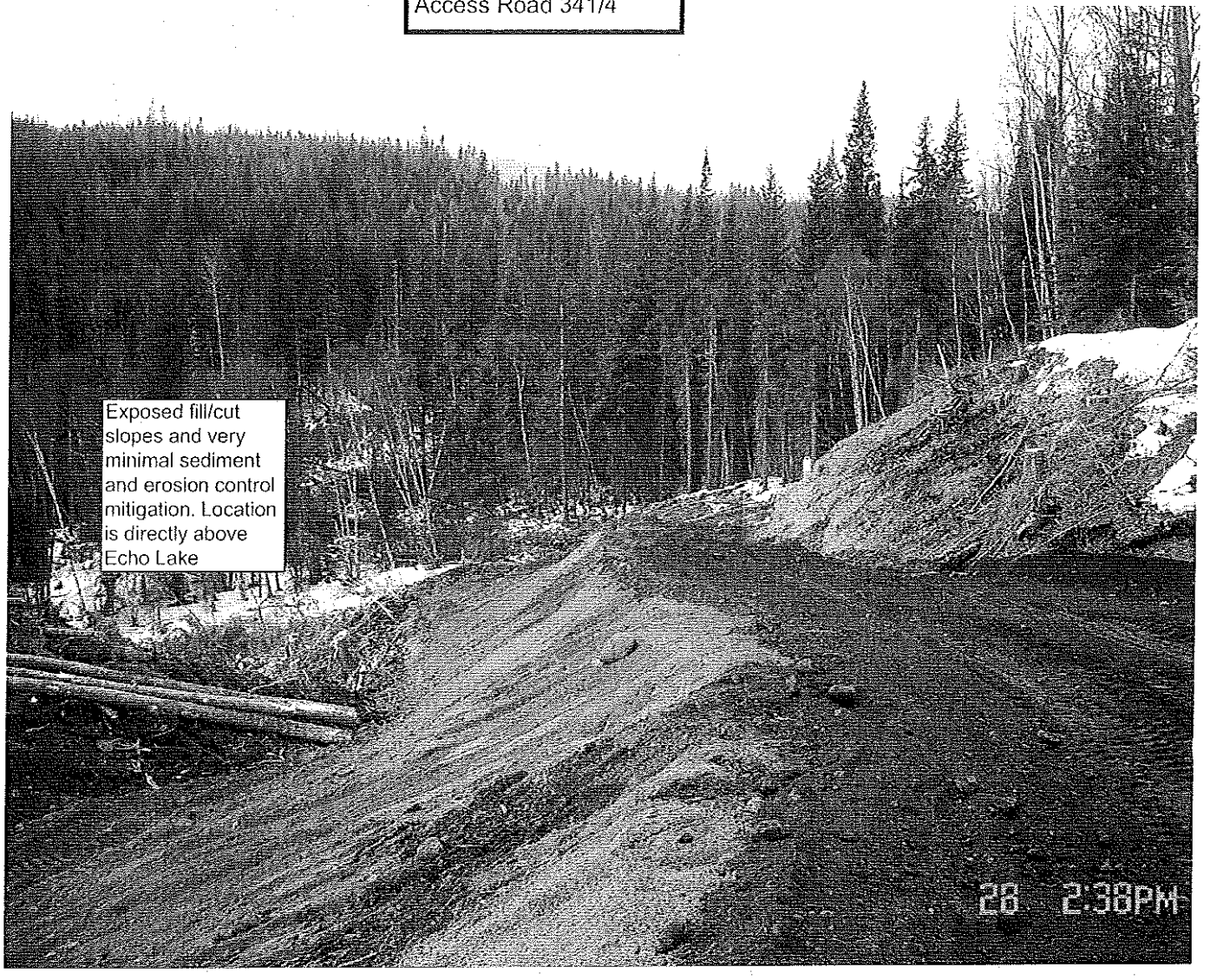
Soil and Rock Debris in Slough Channel


Fish stream crossing
Heavy equipment tracks indicate that at least several crossings have been made


Access Branch Road 335/3
Over-saturated fill slopes


Sediment fencing failing due to fill slope movement

Access Road 341/4




Access road exposed slopes and ditchline has increased risk for sedimentation and erosion

An inspection of the Northwest Transmission Line was conducted on the 23rd and the 27th of July. The areas inspected were adjacent to Hwy 37 between Bob Quinn and Bell II. An inspection was also undertaken the 8th an 9th of August in the Terrace area. The inspection was triggered as a result of identified issues from the two previous EAO inspections. The inspection was to visit these identified areas and look at new construction.

Commitment #47 Air Quality and Dust Control

Currently all open fire is prohibited within the Northwest Fire Centre with the exclusion of the former North Coast Forest District. This prohibition extends to fireworks and burning barrels, however it does allow campfires as long as they are smaller than 0.5 metres by 0.5 metres. The prohibition restricts all Category 2 and 3 fires.

Debris piles located on roads 310 & 311 continued to smoulder during a prohibition. The piles were lit prior to the prohibition issued by the Wildfire Management Branch. On July 23rd the Valard company reps were aware of the fires and were monitoring the piles attempting to extinguish with water. On July 24th aerial flight showed that the partially burnt debris piles were still smoking. On July 27th instructions were given to Gord Piddock to have the piles completely extinguished. The NTL project was in contravention of sec 10(3) of the Wildfire Act.

Commitment #49 Sediment and Erosion Control

Sediment & erosion control is monitored by the environmental monitor on a rotating schedule every 4 to 5 days. Maintenance is performed to the structures or the structures are removed if no longer needed. There were no issues at the time of this inspection with the completed road segments. Culvert inlet and outlets were armoured. Exposed soils are scheduled for grass seeding as soon as weather is favourable and staffing permits. Random visual inspections of installed culverts show little to no damage during installation, integrity of structure has not been compromised. At the time of this inspection there were some issues regarding sediment and erosion control, there had been very little precipitation.

306-1 The environmental monitor commented that the sediment dam on 306-1, constructed with hay bales is failing but is too dangerous to action at the present time . Sediment and erosion control methods in the ditchline are not as effective or maybe contributing to the erosion of the road and sediment transport. It is the opinion of the Natural Resource Officer that if a permanent solution is not completed prior to the fall freshet that there will be significant impacts to the surrounding resources. See attached pictures.

5.3 Sediment and Erosion Control

The failure of the sediment and erosion control measures has allowed the transport material off the site.

5.3 Sediment and Erosion Control

The effectiveness of the sediment and erosion control methods is compromised due to the lack of maintenance in a timely manner.

5.3 Sediment and Erosion Control

Erosion of the fine grained road building material

341-4 At the time of the inspection there appeared to be no sediment issues. Portions of the road are still under construction. Contractor from Valard recognized that grass seeding is required on the section of road that has been completed.

Commitment #50 Water Quality Management

38-1 The timber remains decked between the S2 and S3 creek. Discussion was held regarding the access road being temporary vs. permanent. Once removal of the timber is complete a temporary road will be constructed to facilitate the building of the tower. As soon as the tower is constructed the access road will be rehabilitated.

There has been no more been no more traffic along access road 37. Operations are waiting on the design and construction of the wood box culverts that will facilitate traffic over the identified fish streams.

Along the Headley Creek mainline there are signs of heavy machine traffic and pickup traffic driving through stream 116/3A which has been classified as a S3. Golder & Associates is aware of the oversight and has hung ribbon across the road. No further development beyond the creek until a proper crossing can be constructed. The lack of habitat/protection seems to be a reoccurring theme.

316-1 The hydro line r/w was felled in the winter and Revision creek meanders through the felled wood. Revision crk is on an alluvial fan. Part of the creek now runs down the ditchline of road 316-1. Gord Piddock of Valard communicated that the timber was felled and then the creek meandered through. Concerns regarding the sedimentation and erosion of the ditchline and road surface if more of the creeks flow establishes in the ditchline. See attached pictures

Revision Creek flows from the top right of the picture into the felled right of way. The creek braids into many channels, one channel has been established in the ditchline of 316-1. The Environmental Management Plan (EMP), figure 58 of 63 confirms fish bearing water bodies in the meandering channels of Revision Creek.

Land clearing on the alluvial fan of Revision Creek.

Revision creek meandering through the NTL right of way.

Some of Revision creek running down the ditchline of new access road.

Commitment #52 Material Storage, Handling and Waste Management Plan Requirements are outlined in the CEMP for waste management. Waste is required to be disposed of in compliance with appropriate waste management procedures and legislation. An incinerator has been erected at the Bob Quinn site to dispose of some waste. At the time of this inspection the incinerator is disposing of cardboard only.

The camp was clean and tidy during this inspection. There have been no human/wildlife interactions to date.

There is a lack of sanitary facilities in the form of portable toilets for construction workers was observed in the Kitsumkalum and Nisga'a Direct Award Contract areas.

Environmental Assessment Office

Inspection Record

Project Name: Northwest Transmission Line	Inspection Status:
Certificate #: E09-01	Inspection No:
Certificate Status: *Certified*	Inspection Date: 2012-11-13
Region: Skeena	Office: Victoria
Trigger: Planned	**Incidents of Non-Compliance Observed: Yes**
Non-Compliance Decision Matrix Level: Level 2 - Minor temporary impact likely	Non-Compliance Decision Matrix Category: Many NCs, little/not aware/not capable to comply
Inspector Name(s): Chris Parks (EAO), Stuart Abels (FLNRO), Justin Carlson (EAO)	
Audit Record(s): N/A	Total Non-Compliance(s):
Proponents Name: BC Hydro	
Proponents Contact(s): Tim JENNINGS	
Mailing Address: BC Hydro Transmission and Distribution, Major Projects 1100-1055 Dunsmuir St. Vancouver, BC V7X 1V5	
Phone No: 604-699-9020	Fax No:
Contact Email:	
Location Description: The Northwest Transmission Line Project is a 344 km Transmission Line (currently under construction), running between Terrace and Bob Quinn. The transmission line route generally parallels Highway 118 (the Nisga'a Highway), the Nass Forest Service Road, and Highway 37. Location lat and long below are for the Terrace Substation (southern terminus of the Project).	
Lat: 54˚27'06.82 N	Long: 128˚37'55.76 W
Sector: Energy	

Summary

MONITORING AND REPORTING REQUIREMENTS

Inspection Period:
From: 2012-11-13 **To:** 2012-08-16

Certificate or Act:
Certificate under the Environmental Assessment Act

Activity: On Site

Inspection Summary:	**Response:**
Inspectors from the Environmental Assessment Office (Chris PARKS, Compliance Officer, and Justin CARLSON, Compliance Specialist), and the Compliance and Enforcement Branch of the Ministry of Forests, Lands, and Natural Resource Operations (Stuart ABELS, Compliance and Enforcement Field Unit Supervisor) completed an inspection of the Northwest Transmission Line Project against Conditions of EAC# E11-01, issued for the NTL Project. The purpose of the inspection was to: 1. Follow up on incidents of non-compliance noted in previous inspections (see inspection reports dated 2012-05-08 and 2012-07-23, and EAO Non-Compliance Warning Letter issued to Tim JENNINGS of BC Hydro on June 18, 2012); 2. Verify the certificate holders response to those previously noted non-compliances; and 3. Further verify the certificate holders compliance with Conditions of EAC# E11-01. Inspectors met with JENNINGS and other representatives from BC Hydro on November 13 in Terrace to discuss the inspection and previous incidents of non-compliance. PARKS, ABELS, AND CARLSON inspected construction works between Terrace and Bob Quinn by truck, foot, and helicopter on November 13, 14, 15, and 16, 2012. Bart DEFRIETAS of Golder Associates and Kevin STANCZYK of BC Hydro attended the inspection, with the exception of the helicopter portion. 1. Inspectors noted that the certificate holder had substantially addressed incidents of non-compliance identified during previous inspections. 2. Inspectors noted that the certificate holder was in non-compliance with EAC conditions #44, 45, 47, 49, 53, and 67. See inspection details section. 3. Inspectors could not determine compliance with conditions #'s10 and 19 given snow conditions. 4. Inspectors completed a verbal debrief with DEFRIETAS and STANCZYK with respect to the projects non-compliance with EAC conditions #47 and 49. 5. A follow-up inspection is recommended for spring 2013.	Warning

Compliance Summary	**In**	**Out**	**N/A**	**N/D**
Automatically populated upon upload				

Inspection Details

Types of Compliance: **Construction**

Requirement Description:

Condition #7 Geotechnical Stability

To mitigate potential adverse effects of high groundwater levels encountered during road or foundation excavation, temporary sumps and pumps will be installed and used, or ditches or drains will be installed. Roads must be designed with suitable ditches, drains or granular filters to intercept and control both shallow groundwater seepage and surface runoff. Suitable foundation designs must be developed for the materials or groundwater levels likely to be encountered.

Findings:

The stability and condition of Access Road 306/1 has been improved since the last 2 inspections. The road has been narrowed and capped with competent material to increase stability, suitable ditch lines are evident on both sides of the road, and rock lined french drains have been placed to facilitate cross slope drainage. The road appears to have adequate sediment and erosion control mitigation measures in place, including erosion matting along the exposed soil of the road cut. See Appendix A: Figures 1-4. Snow cover made it difficult to see the road completely. Recommend follow up inspection at this location to confirm compliance.

Access Road 273/1A was just starting construction when we arrived. The road itself was not stable for vehicle traffic an was inspected on foot. The contractor on site was aware of the condition of the road and stated that he intended to have road capping material brought in to improve the road condition prior to the spring melt.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #10 Geotechnical Stability

Should construction take place on active alluvial fans, design and construction practices must incorporate prescriptions outlined in MOFR's Land Management Handbook 57.

Findings:

Access Road 316/1 runs parallel to Revision Creek as identified in the inspection on 2012-07-23. Revision Creek falls on an alluvial fan as well as the ROW for the transmission line. The inflow of the creek is identified by flagging ribbon. Trees were cut and laid down on the alluvial fan; Golder Representatives stated that trees were fallen in a way so that they would not obstruct the waterway. They stated that trees would be removed after the spring snowmelt.

The 2012-07-23 inspection noted that tree falling into the stream channel of revision creek had caused or contributed to an avulsion of the stream channel at this location. Inspectors noted that the avulsion at this location preceded the clearing work, however that the falling of trees into the braided channels contributed to the diversion of some channels subsequent to the avulsion.

Snow cover made it difficult to determine compliance. Photos depicted in Appendix A do show debris pushed against one of the trees recently cleared from the right-of-way that would indicate that the tree was felled into a waterway. Inspectors pulled snow away from the debris and confirmed that they were alluvial in nature. Recommend follow up inspection at this location in snow-free conditions to confirm compliance.

See Appendix A: Figure 5. See also Appendix C, page 30 for conditions when working in and around alluvial fans (Excerpt from MOFR Handbook 57). The work at Revision Creek appears to meet the requirements noted in the handbook, however this site should be reinspected under snow-free conditions.

Compliance: Not Determined

Types of Compliance: **Construction**

Requirement Description:

Commitment #15 Fish and Aquatic Habitat

BC Hydro will avoid in-stream work, including construction of towers, in fish bearing watercourses.

Findings:

Snow cover prevented certain access roads from being inspected. Multiple stream crossings with heavy equipment were identified in all the previous inspection reports. Access Road 273/1A did have an excavator cross a stream, but the contractor stated that it will only do the one crossing until a bridge is constructed as per DFO operational statements.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #17 Fish and Aquatic Habitat

Installation of transmission towers will not occur below the high water mark of any fish bearing watercourse except for the seasonally wetted area of the Snowbank Creek wetland complex on the west side of Highway 37, as agreed to during the environmental assessment.

Findings:

Tower foundation construction at Snowbank Creek was observed during the inspection. Two tower foundations were under construction. Tower foundations were being constructed by first building a rock pad out into the wetland from the Highway 37 causeway. A steel casing was vibrated into the ground, and the casing drilled out to allow cement placement. Cement was then injected into the casing. All material drilled from the casing was being removed from site and disposed of off-site. Mitigation measures in place included onsite environmental monitoring, pH monitoring to determine if cement was entering the wetland (would drive pH level up), and the use of the use of a steel casing to contain drilling process and cement injection.

Turbidity was visually noted under the ice in the wetland. An environmental representative from Cambria Gordon (EM firm) was asked about the turbidity levels and he could not provide a response. He stated that he was only testing for the Creek's pH levels. No other towers were observed being constructed within the high water mark of any fish bearing stream. DEFRIETAS stated that turbidity levels were naturally high in the wetland. See Appendix A: Figures 6-9.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #19 Fish and Aquatic Habitat

For any new access road that requires a crossing of a fish-bearing watercourse, BC Hydro will install a clear span bridge that meets the requirements of the most recent version of the DFO Pacific Region Operational Statement for Clear Span Bridges unless otherwise advised by DFO.

Findings:

One bridge was observed on section 314-2A. The bridge appeared to be compliance with DFO Operational Statement as required by condition, however snow cover made it difficult to confirm. Recommend follow-up inspection under snow free conditions, see Appendix A: Figure 10. Section 273-1A was just getting ready to install a clear span bridge at the time of inspection.

Compliance: Not Determined

Types of Compliance: **Construction**

Requirement Description:

Commitment #32 Wildlife and Wildlife Habitat

Outside the period from June 15 to October 31, BC Hydro must not operate helicopters for construction of the Project within a 2 km line of sight from any mountain goat UWR along the Project route.

Findings:

No project helicopters were observed flying in within 2km of the mountain goat UWR at the time of inspection. DEFRIETAS stated that he is aware of this condition and reports project staff are made aware of the requirement when undertaking helicopter work.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #44 Construction Environmental Management Plan

BCH will implement mitigations considered as per the Construction Environmental Management Plan, (CEMP), dated November 19, 2010.

Findings:

A number of mitigations identified in the CEMP are not being implemented as required by the condition. See non compliances below listed under commitments #'s 47, 49, and 53.

Non compliances with other portions of the Construction Environmental Management Plan were not identified at the time of inspection. See Appendix B for a copy of the CEMP that was drafted March 12, 2012.

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Commitment #45 Construction Environmental Management Plan -

Prior to the commencement of construction activities, BC Hydro must implement a construction Environmental Management Plan (construction EMP), which will be developed as described in Chapter 11 of the Application and updated as necessary.

Findings:

Specific elements of the required CEMP are not being implemented. See findings for commitment #'s 47, 49, and 53. See Appendix B for a copy of the CEMP that was drafted March 12, 2012.

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Commitment #47 Construction Environmental Management Plan - Air Quality and Dust Control Plan

Findings:

Large burn piles from transmission line were noted throughout the inspection. Prior to the inspection; Terrace was receiving complaints regarding the smoke from all of these large wood piles being burned close to town. We spoke with Hydro Contracting staff: Jim Dent Construction at Meziadin Junction regarding the proscriptions set forth in the Air Quality and Dust Control; to wit, burning conditions that mirror environmental regulations under the Open Burning Smoke Regulation. In order to burn, the venting indices must read as "good" on the day of burning followed by "good" or "fair" on the following day. Numerous piles of burning debris were observed on this inspection throughout the 4 days. The indices on November 15, 2012 stated "poor" and "fair" followed by "good" the next day. This non-compliance was observed and indicated to the contracting staff available.

See Appendix A: Figures 11-13 and Appendix B for more details on the Air Quality and Dust Control Management Plan.

EAO will defer follow-up on this issue to FLNRO C&E as it is part of their normal regulatory mandate to enforce under the Open Burning Smoke Regulation. As of April; 18, 2013, FLNRO C+E has communicated the Open Burning Smoke Regulation requirements to BC Hydro and the contractors, and held information sessions specific to this issue.

Recommend follow-up inspection regarding this issue and forward to FLNRO C+E for follow up and enforcement if continued non-compliance noted.

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Commitment #49 Construction Environmental Management Plan - Sediment and Erosion Control Plan

Findings:

Snow cover prevented a very thorough inspection regarding this commitment. Sediment and Erosion Control measures were an issue on the two previous inspections. Access Road 306/1 has been improved since the prior inspections erosion control measures in place including rock-lined french drains across the road surface, erosion control matting applied to the road cut, and proper ditches directing flow to culverts. Ditches appear to be roak armored, however snow cover made this difficult to confirm.

Inspectors noted a general lack of effective and erosion control measures throughout the project. This includes measures absent where erosion was occurring, incorrect placement of erosion control measures, incorrect installation of erosion control measures (ie silt fences not dug-n) and lack of maintenance of measures that were in-place.

Recommend a follow-up inspection during spring thaw conditions.

See Appendix A: Figures 14-17 and Appendix B regarding the Sediment and Erosion Control Management Plan contained within the CEMP.

Compliance: Out

Types of Compliance: **Construction**

Requirement Description:

Commitment #53 Construction Environmental Management Plan - Fish Habitat Protection and Mitigation

Findings:

Section 5.7 of the CEMP, Fish and Fish Habitat Protection and Mitigation includes requirements for the following:

Directional falling of trees away from a waterbody; Inspectors noted trees felled across streams throughout the inspection, including confirmed fish-bearing streams (ie Hoadley Creek, EMP Mapsheet Figure 21, confirmed fish-bearing, see Appendix A: Figure 18).

Installation of effective sediment and erosion control measures to minimize potential for siltation into waterbodies: See findings for Condition 49.

Compliance: Out

Types of Compliance: **Stages**

Requirement Description:

Commitment #66 Construction Environmental Management Plan

As described in Chapter 11 of the Application, construction contractors will be required to employ qualified environmental monitors to evaluate and report on compliance with the construction EMP, Environmental Monitoring Program, and EPPs.

Findings:

Identified as an issue regarding the training and qualifications of the Environmental Monitors on site; BC Hydro identified in their response sent in regards to the warning letter issued on June 18, 2012 stating that environmental monitors have been informed of their requirements and are now been overseen through representatives from Golder and Associates. We did see representation from Cambria Gordon

while work was occurring on Snowbank Creek.

Due to the concerns raised on the previous two inspections; EAO will continue to monitor progress on this commitment. See Appendix D.

Compliance: In

Types of Compliance: **Construction**

Requirement Description:

Commitment #67 Construct Environmental Management Plan

BC Hydro must develop and implement an Environmental Monitoring Program as described in Chapter 12 of the Application.

Findings:

Under Chapter 12 of the Application: 12.2 Construction Environmental Monitoring states the following: The Environmental Monitoring Plan would be prepared before construction activities began and would include monitoring requirements for each proposed mitigation measure to allow adaptive management and to evaluate the success of mitigation. Monitoring components may include:
-Regular inspection of sediment and erosion control measures
-Regular inspection of slash pile burning and reporting of the ventilation index.
-Visual monitoring of water quality in local water bodies, especially during works near watercourses.
-Water quality monitoring upstream and downstream of all construction areas as required, including measurement of common parameters (e.g., pH, turbidity, total suspended solids).

See findings on Commitments 45, 47, 49, and 53 for details regarding non-compliance with this commitment. See Appendix D for more information regarding Chapter 12 of the Application.

Compliance: Out

ACTIONS REQUIRED BY PROPONENT(S) & ADDITIONAL COMMENTS:

INSPECTION CONDUCTED BY:

Signature	*Date Signed :*
Chris Parks, Environmental Assessment Compliance Officer	DRAFT

ENCLOSURE(S) TO PROPONENT(S) & DESCRIPTION:

REGULATORY CONSIDERATIONS:

Environmental Assessment Office	Mailing Address: 1st Floor 836 Yates St PO Box 9426 Stn Prov Govt Victoria BC V8W 9V1	General Inquiries:(250) 356-7479 Fax:(250) 356-7440 E-mail:eaoinfo@gov.bc.ca Website:http://www.eao.gov.bc.ca