



October 21, 2011

Alan Ehrlich
A/Manager, Environmental Impact Assessment
Mackenzie Valley Environmental Impact Review Board
Box 938, 5102 50th Ave
Yellowknife, NT X1A 2N7

RE: Debogorski Public Hearing – undertaking # 3 submerged truck and excavator Great Slave Lake

Dear Mr. Ehrlich,

The Northern Project Management Office (NPMO) is pleased to provide the following information to the Mackenzie Valley Environmental Impact Review Board regarding the March 2006 loss of the RTL Equipment that went through the ice on Great Slave Lake.

The information includes the original accident report, a report from RTL outlining the possible environmental impacts associated with retrieving the equipment in both winter and summer and their recommendation that the equipment remain where it is currently located; a report on the cleanup efforts at the site, and ongoing monitoring reports of the site from 2006 to 2011. These monitoring reports include the water samples taken in 2009 and 2011. The analysis of water samples concludes there is no indication of any hydrocarbons in the water in the vicinity of the submerged equipment.

If you have any further questions regarding this issue please do not hesitate to contact the undersigned.

Sincerely,

Matthew Spence
Senior Project Manager,
Northern Project Management Office

CC Richard Edjericon, Chair Mackenzie Valley Environmental Impact Review Board, Todd Slack Yellowknives
Dene, Michael Martin Aboriginal Affairs and Northern Development Canada, Carey Ogilvie Environment Canada,
Sarah Olivier Fisheries and Oceans

Patrick Duxbury

From: Lorraine Seale [sealel@inac-ainc.gc.ca]
Sent: April 5, 2007 4:59 PM
To: Alan Ehrlich; Patrick Duxbury
Cc: Ginger Arnold; David Livingstone; Lionel Marcinkoski
Subject: RTL Ice Road Break-through Report

Attachments: RTL spill report and EC letter.pdf; 2006-03-21 SDC email re ice road accident
MV2003C0023-EmailsfromSnowfield-Apr06.pdf



RTL spill report and
EC letter...



2006-03-21 SDC
email re ice ro...

Hi Alan and Pat,

As undertaken by INAC during yesterday's Sidon and Consolidated hearing, attached is the report concerning the RTL equipment that went through the ice road on Great Slave Lake in March 2006. A letter from Environment Canada to RTL is also in the file.

I've also attached a relevant email from the MVLWB website (on the Snowfields MV2003C0023 permit page, in the file called "Emails from Snowfields Apr06").

Cheers,
Lorraine

Lorraine Seale
Environment & Conservation
Department of Indian Affairs and Northern Development Box 1500
Yellowknife NT X1A 2R3

Ph: 867-669-2590
Fx: 867-669-2701
nwt-tno.inac-ainc.gc.ca

Lisa Hurley

From: Bob Wooley [bwooley@mvtwb.com]
Sent: Monday, March 27, 2006 3:41 PM
To: Lisa Hurley
Subject: FW: Ice Road Accident Report - RTL - Snowfield Mud Lake Kimberlite Sampling Program

From: Mike Beauregard [mailto:mbeau@internorth.com]
Sent: Monday, March 27, 2006 3:22 PM
To: Bob Wooley
Subject: Fw: Ice Road Accident Report - RTL - Snowfield Mud Lake Kimberlite Sampling Program

----- Original Message -----

From: Mike Beauregard
To: Brent Edmunds
Cc: Robert Paterson ; Larry Fairbairn ; Peter Lennie-Misgeld ; Kenneth Dahl ; Louie Azzolini
Sent: Tuesday, March 21, 2006 11:46 PM
Subject: Ice Road Accident Report - RTL - Snowfield Mud Lake Kimberlite Sampling Program

Attn: NWT WCB Mine Safety

Land Use Permit Holder: Snowfield Development Corp of Vancouver
Contractor: RTL - Robinson Enterprises Ltd of Yellowknife

Dear Mr. Edmunds

During mid-afternoon of Tuesday March 14th a semi-truck and back-hoe belonging to RTL fell through 3 ft+ of ice and into 65 ft of water. The driver was fortunately able to step away from the plunging equipment without injury. Damage to the cabs of both back-hoe and truck were apparently sustained. I did not witness the accident but I was on the ice road on that day, going by the unit while on its way out and later meeting the RTL crew during their return.

The accident occurred approximately 43 km out from Yellowknife on an ice-road that follows the shore of Great Slave Lake to the southeast of Yellowknife. This ice-road of 65 km length commences near the School Draw ramp in town and ends at Snowfield Development Corp's exploration camp south of Burnt Island. The 2006 ice-road was the initial step in the proposed extraction of a 500 ton sample from the Mud Lake kimberlite sill to be carried out by RTL.

The initial pass on the ice road route was conducted by RTL on Weds March 8 by Hagland tracked vehicle, operated by Donnie Robinson and profiler, operated by Shane Langois. While an abundance of rough ice was noted, the ice thickness was determined to be between 30 and 40 inches from radar profiling and augering.

The plowing of the ice road under the direction of RTL foreman Wayne Thompson commenced March 9. Plowing was temporarily stopped by a pressure ridge at km 46. This spot was bridged by a set of steel ramps on Saturday March 11.

During the return of the plow truck on March 11, a new pull-apart crack was noted at km 43, which was then bridged by a set of steel ramps in the morning of Sunday March 12. Pickup trucks were subsequently able to cross the crack without resorting to the ramp bridge. The ramp bridge at km 43 was used repeatedly by plow trucks to finish the last 20 km of the ice road. An airstrip on the lake ice offshore of the camp was also plowed. A semi-truck carrying a D4 Cat went to the camp in the afternoon of March 12.

4/12/2006

The D4 Cat then tramped down an already established 1 km long access winter trail between the camp and the sample site. A working meeting on the morning of Tuesday March 14 was held at the sample site and attended by Land Use, RTL, NWT Rock and Snowfield representatives. A representative from YK Dene Land and Environment was unable to attend.

Following the accident, RTL informed Snowfield on Friday March 17, of their withdrawal from the bulk sample program citing insufficient amount of time available to attempt:

1. an alternate ice-road routing
2. removal of 10,000 to 12,000 yards of overburden/rock
3. extraction of bulk sample with top of sill lying at 45 ft depth.
4. demobilization of equipment and trailer camp.
5. Site remediation.

The initial limiting factor would have been the loss of the winter access trail, once the thaw landed.

On Sunday March 19, RTL walked its D4 Cat from the camp and pulled the set of ramps from the km 46 pressure ridge. Four persons working for Snowfield brought two pickups back to town March 19.

The D4 Cat and one set of pulled ramps are presently on the far side of the hole at km 43. The ramps at km 43 have yet to be removed.

I am presently trying to re-establish ice road access beyond km 43 in order to get back out to camp by pickup truck following two days of blowing snow. Should you have further questions, please call or email.

Regards
Mike Beauregard
Contract Geologist

Environnement
CanadaEnvironnement
Canada

Environmental Enforcement Division
Suite 301, 5204-50th Ave Yellowknife NT
X1A 1E2

August 30, 2006
Shane Langlois
Project Manager
RTL - Robinson Enterprises Ltd.
PO Box 1807 - 350 Old Airport Rd.
Yellowknife NT - X1A 2P4

Shane

Re: Truck and Excavator Thru Ice - Great Slave Lake
File # 4408 2006 03 15 001

This is to inform you of Environment Canada's decision with respect to an incident in which a 1970 Hayes tandem axle, 6X6 plow truck, a 1998 John Deere excavator and a 16 wheel lowboy and pony owned by RTL - Robinson Enterprises Ltd. (RTL) broke through the ice of Great Slave Lake, NT on March 14, 2006, at approximately 3.5 km southeast of Pilot Islands (62° 11' 57" N - 114° 04' 23" W).

Reports provided by RTL identified that the above mentioned equipment is submerged and is resting on the bottom of Great Slave Lake in approximately 20 meters of water. That during the weeks after that incident, five "in-situ burns" in conjunction with absorbent pad deployment was conducted by RTL to destroy and remove hydrocarbons leaking from the submerged equipment. Additionally, it was reported that RTL drilled several holes in the ice surrounding the "break thru" area in an effort to identify if any released hydrocarbons were migrating away from the spill site. RTL reported that inspections of the spill site conducted during "open water" did not identify any hydrocarbon products on the surface of Great Slave Lake. Subsequently, RTL is now of the opinion that the vast majority of the hydrocarbons associated with the submerged equipment has been removed.

Furthermore, RTL has committed in writing to drill additional test holes during the winter of 2007 in an effort to identify any residual hydrocarbon pockets which may have formed under the ice. Additionally RTL has committed to monitoring the site by boat during open water seasons every year.

At the request of Environment Canada, RTL explored options to extract the submerged equipment. RTL identified that the removal of the equipment during the winter of 2006 was problematic due to inconsistent ice conditions and pressure ridges prevalent in the immediate area, resulting in safety concerns for divers and equipment operators associated with an extraction process.

Additionally RTL identified that extraction of the equipment would be possible during open water by a combination of airbag and barge process. However, weight restrictions make it impossible to break the surface of the water thus requiring the equipment to be floated near the shore of Great Slave Lake and then dragged onto land. RTL has suggested that this process would cause safety concerns to divers an increased risk of residual hydrocarbon release and potential fish habitat damage.

Based on the above information, RTL has requested that all submerged equipment remain as is on the bottom of Great Slave Lake, near Pilot Islands.

Canada

Environment Canada's mandate is to identify any possible *Fisheries Act* issues related to deleterious substances which may impact fish habitat. In particular, Environment Canada enforces section 36(3) of the *Fisheries Act*, R.S.C., 1985, c F-14 which states... "Subject to subsection (4), no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in a place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water".

The *Fisheries Act* defines a "deleterious substance" as (a) any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water...".

Based on Environment Canada's review of the reports provided by RTL and discussions held with the Department of Indian and Northern Affairs and Fisheries and Oceans Canada, Environment Canada accepts RTL's proposal to leave the above identified submerged equipment in place, as is.

Environment Canada's decision was based on the facts of this occurrence, taking into consideration the volume and toxicity of the released substances and the potential impact on the environment and human health. It should be noted that, any future occurrences of this nature will be evaluated on their own merit and may require additional mitigation by the responsible party.

It is understood that RTL will uphold the commitment to perform the 2007 drilling inspection as well as yearly open water inspections. That RTL will substantiate the inspection results in the form of a written report(s) to Environment Canada which should be provided within 30 days of the inspection.

It is understood that RTL is the owner of the submerged equipment and the responsible party. If it is identified or determined that the submerged equipment is leaking a deleterious substance into the waters of Great Slave Lake, or if complaints are raised at a later date, RTL will be responsible for any and all mitigative measures required and may be liable to enforcement action pursuant to the *Fisheries Act*.

If you require any additional information regarding Section 36(3) of the *Fisheries Act*, or need further clarification concerning this matter, please feel free to contact the undersigned.

Sincerely

Ken Russell
Enforcement Officer
Environmental Enforcement Division
Suite 301 - 5204 - 50th Ave
Yellowknife NT, X1A 1E2
867 669 4731

Cc: Craig Broom Environment Canada
Ken Dahl Indian and Northern Affairs Canada
Emile Watson Fisheries and Oceans Canada



ROBINSON Enterprises Ltd.

**RTL Robinson Enterprises Ltd.
Evaluation of Recovery Options
Drybones Break-Thru
Prepared by S. Langlois
June 27, 2006**

Presented to:

Ken Dahl – INAC
Clint Ambrose – INAC
Ed Hornby – INAC
Craig Broome – EC
Ernie Watson – Fisheries

Copy Provided to:

Ken Cooper – Coast Guard

RTL Robinson Enterprises Ltd.
Evaluation of Recovery Options
Prepared by S. Langlois, shane_langlois@rtl.ca
June 27, 2006

Brief History:

Date of Incident: March 14, 2006

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands)

Depth of Water: approximately 20+ meters

Equipment Lost:

- 1970 Hayes tandem axle, 6x6 plow truck
- 1998 John Deere tracked excavator
- 16 wheel lowboy & pony

Approximate weight of Equipment: 50,000 kg's

Fuel onboard Equipment: 900 liters (approximate) *combined*

Hydraulic Oil onboard Equipment: 160 liters+/- of Imperial MD 30 is sealed
pressurized container

Recovery Options

Winter Removal:

Removing the equipment from a frozen lake surface has been considered, however, the weight of the excavator is approximately 67,000 lb's and is consequently, too heavy to be safely supported by a crane on the ice for such a lift. This area is known to have prevalent pressure ridges throughout; this is problematic as it produces inconsistent ice conditions which further complicate the operation and safety of both crews and heavy equipment.

Pros:

- None

Cons:

- Safety hazard for crews on the ice
- Safety hazard for divers working under the ice

Summer Removal:

It is possible to lift the equipment to the surface of the lake with either a barge carrying a crane, or by using air bags. However, it is not possible to break the surface of the water with a heavy load of this physical size. Depending on what location the lifting lines will be secured to, the excavator will draw between 10 to 20 feet of water. Once the excavator is finally brought to the surface it will be secured to the barge and brought to shore. As the barge approaches land, it will run aground relative to the draught of the equipment. The equipment will then be released to settle on the bottom. Winching equipment such as a large bulldozer will be mobilized to land and anchored on shore. Divers will re-attach the cable to the equipment and it will be dragged along the lake bottom to shore. Once on land, it will be disconnected from the bulldozer and re-connected to a winch system on the barge, where it will subsequently be pulled back onto the flatbed surface of the barge for final delivery to Yellowknife.

Pros:

- The equipment is removed from the lake

Cons:

- There is risk to under water divers who have to manipulate slings and cables in an attempt to connect to the equipment which is sitting on its side, and submerged in silt at the lake bottom
- By moving the equipment, residual fluids that are contained in the equipment will be released into the environment and will not be controllable.
- The equipment is submerged in silt, this material will be disturbed.
- Depending on how close the equipment can be moved to shore with the barge, excessive damage will be created to the lake bottom when the excavator is winched to land.
- There will be some adverse affects to the shoreline where the equipment will be pulled to shore, also, the bulldozer will have to traverse the shoreline to anchor itself, and this too will cause damage.

Recommendation

RTL believes that moving this equipment will create more environmental damage then leaving it in its current position.

RTL has investigated the site nearly ten times since March 15, 2006, five of these site visits included in-situ burning and clean up by way absorbent pads. It is our belief that although it is impossible to remove all fluids from the equipment, the vast majority has been removed and the site is posing very little risk to the environment.

In regards to a navigational concern of equipment of this size, we feel that due to the configuration of the equipment (excavator laying on its side) and the soft bottom of the lake, this equipment will extend less than nine feet from the bottom, leaving over 65 feet of clearance to the surface.

This has been an unfortunate incident, though, not un-precedented. It is our understanding that many such incidents have occurred in years past including:

- Tug lost on Great Slave Lake
- Barge load of cars en route to the Mackenzie, lost on Great Slave Lake
- Cat Train, Hardisty Lake
- Plow Truck on the Great Bear Lake ice road
- D8 Cat at Cambridge Bay

With the agreement of all parties, RTL would like to remove the existing buoy marking the accident location, and leave the equipment were it lays.

Although RTL will leave this equipment in its current location, we will not stop monitoring the site, it will be checked every year by boat in the summer and test holes at the incident location will be drilled in the winter of 2007 to look for residual fluids pockets under the ice.

APPENDIX I

Dimension and Specifications of John Deere Excavator

ENGINE

It's John Deere-engineered and manufactured. Replaceable wet-type cylinder liners are spun cast and machined for uniform wall thickness to assure even heat dissipation. Piston spray cooling contributes to long component life. A dynamically-balanced crankshaft assures smooth operation. Turbocharged for maximum performance.

Engine: John Deere 6076A - Turbocharged and Aftercooled
 Rated power at 2,000 rpm.....220 SAE net hp (164 kW)
232 SAE gross hp (173 kW)
 Cylinders.....6
 Displacement.....456 cu. in. (7,633 L)
 Maximum net torque at 1,400 rpm.....650 lb.-ft. (881 Nm)
 Fuel consumption, typical.....4 to 9 gal./hr. (15 to 34 L/hr)
 Cooling fan.....suction-type viscous drive
 Electrical system.....24-volt w/45-amp alternator
 Batteries (two 12 volt).....reserve capacity: 180 min.

HYDRAULIC SYSTEM

Sophisticated, yet simple; state-of-the-art, yet easy to operate. You get the best of both worlds with the 892E LC's hydraulic system. This closed center system uses two axial piston pumps. A microprocessor ties the system with the engine to allow the operator to tailor hydraulic performance to particular job situations. A soft touch keypad control to the operator's right allows the desired performance to be tuned in with the touch of a button or two. This load sensing, speed sensing, variable flow system delivers smooth response even when the operator uses more than one function at the same time. The operator is in complete control at all times and can override any of the preset hydraulic modes or engine settings with the simple touch of a button.

Main pumps.....2 variable-displacement axial pistons
 Maximum rated flow.....2 x 72 gpm (2 x 273 L/min.)
 Pilot pump.....one gear
 Maximum rated flow.....9.3 gpm (35 L/min.)
 Pressure setting.....668 psi (4605 kPa)
 System operating pressure
 Implement circuits.....4,270 psi (29,440 kPa)
 Travel circuits.....4,900 psi (34,240 kPa)
 Swing circuits.....5,540 psi (38,480 kPa)
 Oil filtration
 One 10-micron full flow return filter with bypass
 One pilot oil filter
 One suction filter

Cylinders	Bore	Rod Diameter	Stroke
Boom (2).....	5.7 in. (145 mm)	3.9 in. (100 mm)	60.2 in. (1530 mm)
Arm (1).....	5.5 in. (145 mm)	4.3 in. (110 mm)	71.7 in. (1820 mm)
Bucket (1).....	5.7 in. (145 mm)	3.7 in. (95 mm)	49.2 in. (1250 mm)

SWING MECHANISM

Multiple planetary gearing is driven by an axial-piston, high-torque hydraulic motor. Ring and pinion gears are induction hardened for long life. The multiple, wet-disk swing brake is spring applied, hydraulically released. The single 90-ball swing bearing is sealed top and bottom.

Swing speed.....0-12 rpm

UNDERCARRIAGE

Heavy-duty rollers and chain are designed to stand up to the side-to-side stress of excavator work. The strong box-section track frame comes with a track guide at the front idler location and center of the frame. The track frames are welded to the center section to eliminate any need for periodic tightening and are designed to resist the buildup of mud and debris.

Carrier rollers (per side).....	2
Track rollers (per side).....	9
Idlers (per side).....	1
Shoes, triple semigrouser (per side).....	50
Track guides.....	front and center
Track adjustment.....	Hydraulic
Travel speed.....	Low Medium High
mph.....	0-1.6 0-2.4 0-3.4
km/h.....	(0-2.6) (0-3.9) (0-5.5)

Drawbar pull.....52,120 lb. (231 kN)
 Tractive gradability.....123% (51 deg.)
 Off-level operating limit for oil sump.....100% (45 deg.)

Ground Pressure Data

Shoe Width/ Grouser	Average Ground Pressure	Recommended Application
24 in./triple (600 mm)	6.81 psi (46.9 kPa)	Rocky terrain and stumps
32 in./triple (800 mm)	5.62 psi (38.7 kPa)	General/soft terrain

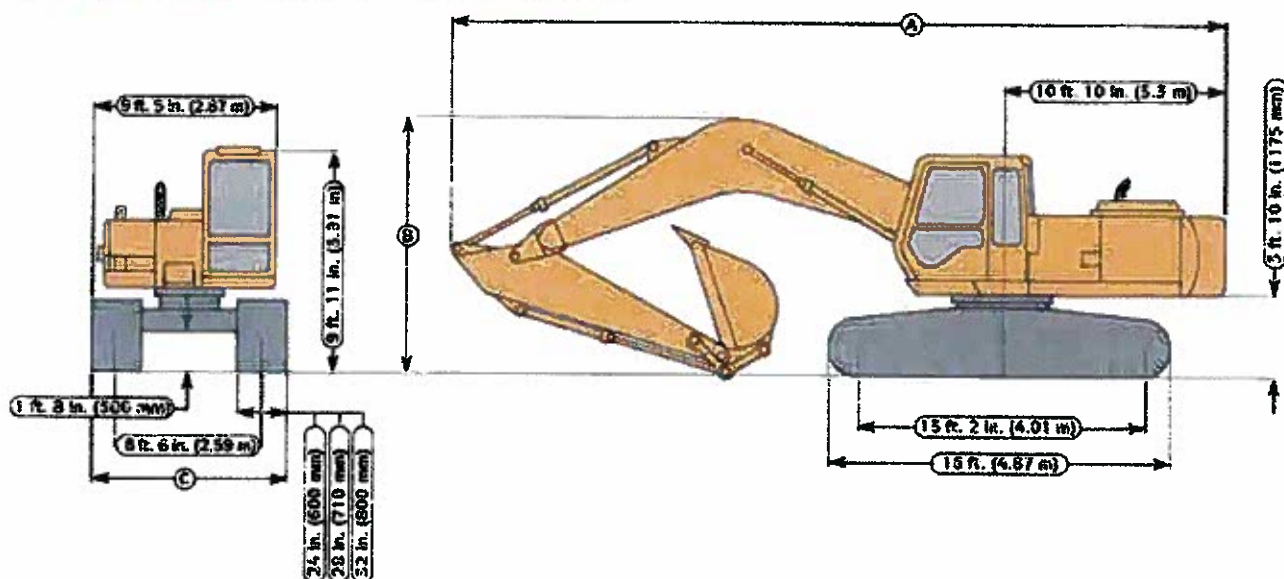
CAPACITIES

Fuel tank.....135 gal. (510 L)
 Cooling system.....54 qt. (52 L)
 Engine lubrication, including filter.....6.3 gal. (24 L)
 Hydraulic system.....82 gal. (310 L)
 Planetary propel drive (each).....6.3 qt. (6 L)
 Swing drive.....13.8 qt. (13 L)

OPERATING WEIGHTS

Weights	lb.	kg
Operating weight with full fuel tank, 175-lb. (79 kg) operator, 54-in. (1372 mm) bucket, 13 ft. 1 in. (4.0 m) arm, 14,770-lb. (6700 kg) counterweight and 32-in. (800 mm) triple grouser shoes.....	67,450	30,595
Undercarriage		
Shoe width:		
24-in. (600 mm) triple grouser shoes.....	22,465	10,190
32-in. (800 mm) triple grouser shoes.....	24,515	11,120
Component Weights:		
Upperstructure with full fuel tank (less front attachments and 14,770-lb. [6700 kg] counterweight).....	14,380	6523
One-piece boom (with arm cylinder).....	5,855	2647
Arm, 8 ft. 9 in. (2.7 m) with bucket cylinder and linkage.....	3,435	1558
Arm, 10 ft. 6 in. (3.2 m) with bucket cylinder and linkage.....	3,673	1665
Arm, 13 ft. 1 in. (4.0 m) with bucket cylinder and linkage.....	3,907	1772
Boom lift cylinders (2); total weight.....	1,318	593
Counterweight.....	14,770	6700
2.3 cu. yd. (1.76 m³), 54 in. (1370 mm) bucket.....	2,557	1160

DIMENSIONS



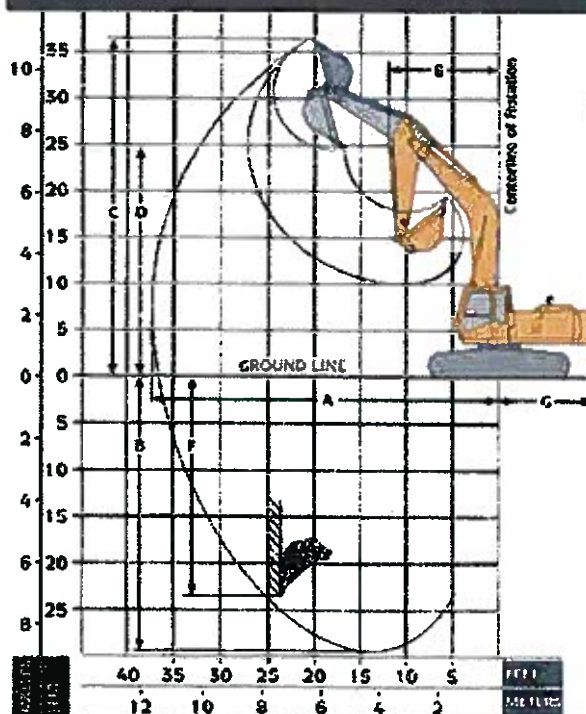
A) With 8 ft. 9 in. (2.7 m) arm 36 ft. 3 in. (11.06 m)
 With 10 ft. 6 in. (3.2 m) arm 35 ft. 11 in. (10.94 m)
 With 13 ft. 1 in. (4.0 m) arm 36 ft. 1 in. (11.01 m)

B) With 8 ft. 9 in. (2.7 m) arm 11 ft. 2 in. (3.41 m)
 With 10 ft. 6 in. (3.2 m) arm 10 ft. 6 in. (3.20 m)
 With 13 ft. 1 in. (4.0 m) arm 11 ft. 5 in. (3.49 m)
 C) With 8 ft. 6 in. (2.59 m) undercarriage and
 24-in. (600 mm) shoes 10 ft. 6 in. (3.19 m)
 32-in. (800 mm) shoes 11 ft. 1 in. (3.39 m)

OPERATING INFORMATION

	8 ft. 9 in. (2.7 m)	10 ft. 6 in. (3.2 m)	13 ft. 1 in. (4.0 m)
Arm Length	Arm Length	Arm Length	Arm Length
Arm force with 54-in. (1370 mm) heavy-duty bucket.....	36,970 lb. (164.4 kN)	30,645 lb. (136.3 kN)	25,340 lb. (117.2 kN)
Bucket tangential force with 54-in. (1370 mm) heavy-duty bucket.....	41,620 lb. (185.1 kN)	41,620 lb. (185.1 kN)	41,620 lb. (185.1 kN)
Lifting capacity over front @ ground level 20-ft. (6.1 m) reach.....	23,401 lb. (10,615 kg)	22,977 lb. (10,422 kg)	22,147 lb. (10,046 kg)
A Max. reach.....	34 ft. 8 in. (10.57 m)	36 ft. 5 in. (11.10 m)	38 ft. 11 in. (11.86 m)
A' Max. reach @ ground level.....	34 ft. 0 in. (10.36 m)	35 ft. 9 in. (10.90 m)	39 ft. 4 in. (11.68 m)
B Max. digging depth.....	22 ft. 5 in. (6.84 m)	24 ft. 3 in. (7.38 m)	26 ft. 10 in. (8.18 m)
B' Max. digging depth @ 8 ft. (2.44 m) flat bottom.....	21 ft. 10 in. (6.65 m)	23 ft. 8 in. (7.21 m)	26 ft. 5 in. (8.05 m)
C Max. cutting height.....	32 ft. 4 in. (9.85 m)	33 ft. 6 in. (10.22 m)	34 ft. 9 in. (10.60 m)
D Max. dumping height.....	22 ft. 4 in. (6.81 m)	23 ft. 4 in. (7.12 m)	24 ft. 7 in. (7.49 m)
E Min. swing radius.....	14 ft. 11 in. (4.54 m)	14 ft. 7 in. (4.45 m)	14 ft. 4 in. (4.38 m)
F Max. vertical wall.....	18 ft. 5 in. (5.61 m)	21 ft. 3 in. (6.48 m)	24 ft. 2 in. (7.36 m)
C Tail swing radius.....	10 ft. 10 in. (3.30 m)	10 ft. 10 in. (3.30 m)	10 ft. 10 in. (3.30 m)

DIGGING DEPTH AND REACH



LIFT CAPACITIES

Ratings at bucket lift hook, machine equipped with 52-in. (800 mm) shoes, 2.3 cu. yd. (1.76 m³) 54 in. (1370 mm) wide, 2557 lb. (1150 kg) bucket and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. **Boldface** type indicates hydraulic limited capacities. **Lightface** type indicates stability limited capacities, in lb. (kg). Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.

Equipped with 8 ft. 9 in. (2.7 m) arm

○ OVER SIDE □ OVER FRONT

Load Point Height	5 ft. (1.52 m)	10 ft. (3.05 m)	15 ft. (4.57 m)	20 ft. (6.10 m)	25 ft. (7.62 m)	30 ft. (9.14 m)	35 ft. (10.67 m)
20 ft. (6.10 m)					12,222 (5543)	12,466 (5747)	
15 ft. (4.57 m)				15,863 (7198)	15,863 (7198)	11,788 (5347)	13,716 (6222)
10 ft. (3.05 m)				15,908 (7216)	18,237 (8276)	11,170 (5067)	15,337 (6967)
5 ft. (1.52 m)				14,810 (6718)	22,112 (10030)	10,575 (4797)	16,912 (7671)
Ground Line				14,227 (6453)	23,401 (10615)	10,161 (4609)	17,063 (7743)
- 5 ft. (- 1.52 m)			22,167 (10028)	22,167 (10028)	14,069 (6382)	23,081 (10470)	9968 (4531)
- 10 ft. (- 3.05 m)		32,205 (14608)	32,205 (14608)	20,093 (9114)	20,093 (9114)	14,214 (6447)	21,200 (9620)
- 15 ft. (- 4.57 m)			21,205 (9648)	21,205 (9648)	14,690 (6663)	17,021 (7721)	

Equipped with 10 ft. 6 in. (3.2 m) arm

Load Point Height	5 ft. (1.52 m)	10 ft. (3.05 m)	15 ft. (4.57 m)	20 ft. (6.10 m)	25 ft. (7.62 m)	30 ft. (9.14 m)	35 ft. (10.67 m)
20 ft. (6.10 m)					11,487 (5197)	11,487 (5197)	7461 (3383)
15 ft. (4.57 m)					11,524 (5209)	12,888 (5831)	8445 (3831)
10 ft. (3.05 m)			25,175 (11,419)	28,768 (13,061)	16,241 (7367)	17,842 (8088)	11,279 (5116)
5 ft. (1.52 m)					15,038 (6821)	21,082 (9547)	10,635 (4823)
Ground Line			20,003 (9073)	20,003 (9073)	14,288 (6481)	22,977 (10422)	10,144 (4601)
- 5 ft. (- 1.52 m)		13,847 (6281)	13,847 (6281)	10,294 (4782)	10,294 (4782)	13,989 (6345)	23,254 (10548)
- 10 ft. (- 3.05 m)		28,768 (13,061)	28,768 (13,061)	22,393 (10157)	24,886 (11184)	14,072 (6350)	21,990 (9978)
- 15 ft. (- 4.57 m)		18,717 (8490)	18,717 (8490)	22,939 (10405)	23,894 (10856)	14,353 (6513)	15,764 (7111)

Equipped with 13 ft. 1 in. (4.0 m) arm

Load Point Height	5 ft. (1.52 m)	10 ft. (3.05 m)	15 ft. (4.57 m)	20 ft. (6.10 m)	25 ft. (7.62 m)	30 ft. (9.14 m)	35 ft. (10.67 m)
20 ft. (6.10 m)						9049 (4105)	10,080 (4576)
15 ft. (4.57 m)						8914 (3998)	10,864 (4887)
10 ft. (3.05 m)			21,403 (9700)	21,403 (9700)	15,806 (7170)	15,806 (7170)	11,712 (5313)
5 ft. (1.52 m)			23,971 (10873)	28,671 (13008)	15,616 (7063)	18,468 (8343)	10,979 (4960)
Ground Line			22,505 (10207)	27,538 (12401)	14,620 (6632)	22,147 (10044)	10,371 (4704)
- 5 ft. (- 1.52 m)		19,219 (8703)	19,219 (8703)	22,074 (10013)	26,134 (11890)	14,097 (6394)	23,777 (10788)
- 10 ft. (- 3.05 m)	18,508 (8392)	18,508 (8392)	20,237 (9192)	20,237 (9192)	22,125 (10056)	26,384 (12008)	13,965 (6330)
- 15 ft. (- 4.57 m)		21,892 (9904)	21,892 (9904)	22,506 (10208)	27,382 (12378)	14,122 (6406)	20,380 (9238)
- 20 ft. (- 6.10 m)		26,611 (12071)	26,611 (12071)	20,978 (9514)	20,978 (9514)	14,652 (6646)	18,088 (8286)

BUCKETS

A full line of buckets is offered to meet a wide variety of applications. All capacities are SAE heaped* ratings. The buckets have an adjustable bushing feature for side clearance, with the exception of the ditching bucket. Tooth selection includes either the John Deere Fanggs®, Standard, Tiger, Twin Tiger, Abrasion panel or Flare, or the ESCO (Vortabok) Standard, Tiger, Twin Tiger or Flare tooth. Replaceable cutting edges are available through John Deere parts. Optional side cutters add 6 inches (150 mm) to bucket widths.

Type Bucket	Bucket Width		Bucket Capacity*		Weight		Bucket Dig Force		Arm Dig Force 6 ft. 9 in. (2.7 m)		Arm Dig Force 10 ft. 6 in. (3.2 m)		Arm Dig Force 15 ft. 1 in. (4.6 m)		Bucket Tip Radius		No. Teeth
	in.	mm	yd³	m³	lb.	kg	lb.	kN	lb.	kN	lb.	kN	lb.	kN	in.	mm	
General Purpose Plate Lip	30	760	1.20	0.92	1770	803	41,620	185.1	36,970	164.4	30,645	136.3	26,340	117.2	62.5	1588	4
	36	915	1.18	1.15	1872	849	41,620	185.1	36,970	164.4	30,645	136.3	26,340	117.2	62.5	1588	4
	42	1065	1.75	1.34	1998	906	41,620	185.1	36,970	164.4	30,645	136.3	26,340	117.2	62.5	1588	5
	48	1220	2.03	1.55	2115	959	41,620	185.1	36,970	164.4	30,645	136.3	26,340	117.2	62.5	1588	6
	54	1370	2.50	1.76	2215	1005	41,620	185.1	36,970	164.4	30,645	136.3	26,340	117.2	62.5	1588	7
General Purpose High Capacity	30	760	1.26	0.96	2420	1097	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	4
	36	915	1.56	1.19	2550	1156	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	4
	42	1065	1.85	1.41	2710	1229	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	5
	48	1220	2.15	1.64	2815	1277	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	6
	54	1370	2.45	1.87	2982	1352	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	7
Heavy-Duty Plate Lip	30	760	1.26	0.96	2516	1141	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	4
	36	915	1.56	1.19	2781	1261	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	4
	42	1065	1.85	1.41	3120	1415	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	5
	48	1220	2.15	1.64	3312	1505	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	6
	54	1370	2.45	1.87	3562	1615	37,430	166.5	35,490	157.9	29,550	131.4	25,525	115.5	69.5	1765	6
Severe-Duty Cast Lip	42	1065	1.75	1.34	2774	1258	40,020	178.0	36,425	162.0	32,245	144.5	26,045	115.8	65.0	1651	5
	48	1220	2.03	1.55	2815	1277	40,020	178.0	36,425	162.0	32,245	144.5	26,045	115.8	65.0	1651	5
Severe-Duty Plate Lip	30	760	1.26	0.96	2850	1292	35,150	156.3	34,595	153.9	28,085	128.5	25,050	111.3	74.0	1880	5
	36	915	1.56	1.19	3024	1371	35,150	156.3	34,595	153.9	28,085	128.5	25,050	111.3	74.0	1880	4
	42	1065	1.85	1.41	3343	1516	35,150	156.3	34,595	153.9	28,085	128.5	25,050	111.3	74.0	1880	4
	48	1220	2.15	1.64	3522	1597	35,150	156.3	34,595	153.9	28,085	128.5	25,050	111.3	74.0	1880	5
Ditching	72	1830	1.66	1.27	2531	1148	51,005	226.9	39,695	176.6	32,635	145.2	27,795	123.6	51.0	1295	0

BUCKET SELECTION CHART

RECOMMENDED BUCKET SIZE*

Bu/yd³	kg/m³	MATERIAL (loose weight)	General Purpose		Heavy-Duty	
			cu. yd.	m³	cu. yd.	m³
700	420	Wood chips	9.0	6.9	—	—
750	440	Peat, dry	8.0	6.1	—	—
950	580	Cinders	5.5	4.2	—	—
1170	690	Peat, wet	5.0	3.8	—	—
1600	950	Topsoil	4.0	3.0	—	—
1780	1050	Coal	3.5	2.7	3.25	2.5
2100	1250	Caliche	1.75 to 2.50	1.3 to 1.9	1.50 to 2.50	1.1 to 1.9
2100	1250	Earth, loam	2.75	2.1	2.50	1.9
2250	1330	Shale	2.75	2.1	2.50	1.9
2400	1420	Sand, dry	2.75	2.1	2.50	1.9
2500	1480	Clay, dry	2.00 to 2.50	1.5 to 1.9	1.75 to 2.25	1.3 to 1.7
2550	1510	Earth, dry	2.00 to 2.50	1.5 to 1.9	1.75 to 2.25	1.3 to 1.7
2600	1540	Limestone, broken or crushed	1.65 to 2.25	1.2 to 1.7	1.50 to 2.00	1.1 to 1.5
2700	1600	Earth, wet	2.00 to 2.50	1.5 to 1.9	1.75 to 2.25	1.3 to 1.7
2800	1650	Clay, wet	2.00 to 2.50	1.5 to 1.9	1.75 to 2.25	1.3 to 1.7
2800	1660	Rock, granite, blasted and broken	1.65 to 2.75	1.2 to 2.1	1.50 to 2.50	1.1 to 1.9
2850	1690	Sand, moist	2.25	1.7	2.10	1.6
2900	1720	Sand and gravel, dry	2.25	1.7	2.15	1.6
3100	1840	Sand, wet	2.15	1.6	2.00	1.5
3400	2020	Sand and gravel, wet	2.00	1.5	1.85	1.4

*Contact your John Deere dealer for optimum bucket and attachment selections. These recommendations are for general conditions and average use. Larger buckets may be possible when using light buckets, for flat and level operations, less compacted materials, and volume loading applications such as mass excavation applications in ideal conditions. Smaller buckets are recommended for adverse conditions such as off-level applications and uneven surfaces. Bucket capacity indicated is SAE heaped.

APPENDIX 2

Previously Submitted Reports, Correspondence & Site Visits, Complete with Images

- March 28, 2006 – RTL Drybones Break-thru Summary
- April 28, 2006 – INAC site visit e-mail
- May 1, 2006 – RTL Drybones Break-thru Clean-up Report
- May 10, 2006 – RTL Drybones Break-thru Clean-up Report
- June 6, 2006 – INAC removal Inquiry e-mail & RTL Site Inspection
Report and Meeting Request
- June 27, 2006 – RTL Site Inspection Report e-mail
- June, 27, 2006 – RTL Meeting Request e-mail

**RTL Robinson Enterprises Ltd.
Drybones Break-thru, Summary
Prepared by S. Langlois
March 28, 2006**

Date of Incident: March 14, 2006

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands)

Depth of Water: approximately 20 meters

Equipment Lost:

- 1970 Hayes tandem axle, 6x6 plow truck
- 1998 John Deere tracked excavator
- 16 wheel lowboy & pony

Approximate weight of Equipment: 45,000 kg's

Fuel onboard Equipment: 900 liters (approximate)

Hydraulic Oil onboard Equipment: 160 liters+/- of Imperial MD 30 is sealed
pressurized container

Operator: Paul Clark

Superintendent on Duty: Wayne Thompson

Preliminary Discussions:

RTL was requested by Mike Beauregard of Snowfield Developments to open a road to their site located at Drybones Bay with intent to perform a bulk sample. Mike indicated that the ice was particularly rough this year and it was difficult to get around. Mike did preliminary reconnaissance via snow machine and ultimately established a route from the air via aircraft.

Summary/Timeline

March 7, 2006

- Opened road with two Hildebrand all-terrain vehicles followed by a 4x4 pick-up truck performing an ice profile.

March 8 & 9, 2006

- Widened road with 6 x 6 plow trucks

March 10, 2006

- Continued to plow
- Wayne inspected ice ridges/cracks and erected signage to notify the public that the road was for private use only

March 11, 2006

- Widened road with 6 x 6 plow trucks
- Installed bridge
- Mobilized D4 to Drybones Bay

March 12, 2006

- Widened road with 6 x 6 plow trucks
- Installed second bridge east of accident site

March 13, 2006

- Wayne inspected bridges
- Drilled test holes to establish ice conditions

March 14, 2006

- Widened road with 6 x 6 plow trucks
- Site meeting (prior to accident)
- 15:30 hrs, Lost equipment at location of first bridge (bridge did not sink)
- Wayne marked site with survey stakes, paint and ribbon

March 14, 2006 reporting, performed by Mike Suchlandt, RTL Safety Manager

- Spill report submitted at 15:57 hrs
- Advised Ken Russell via telephone, approximately 16:30 hrs
- Advised Harvey Gaukel via telephone, approximately 16:30 hrs
- Advised Ken Dahl via telephone, approximately 16:30 hrs
- Left message for Davis Jessiman approximately 16:45
- Left messages for Ed Hornby approximately 16:45

March 15, 2006

- Wayne and Shane Langlois inspected the site, drilled 7 holes randomly around the perimeter of the break-thru to establish ice thickness and to check for fuel
- Measurements of the ice recorded between 94 cm and 107 cm
- No fuel was found in the test holes, some fuel was visible in the opening

March 16, 2006

- In-situ burn of the spilled fuel

March 19, 2006

- Site inspection by RTL management
- Another in-situ burn of fuel
- More perimeter holes were drilled
- Water depth was verified and an underwater camera was used to inspect the site
- Bridge located east of accident site was removed

March 20, 2006

- Contacted Dave Tyson at DFO to advise that RTL may have to use light explosives to remove bridge that is froze in at accident site.

March 21, 2006

- Inspect site, excavate ice to allow access for divers
- Underwater investigation of lost equipment by Arctic Divers
- Inspect subsurface of ice for pockets of fuel, none found
- Mike Suchlandt at RTL submitted report to WCB
- Mike Beauregard submitted Ice Road Accident Report to WCB

March 22, 2006

- Removed bridge at accident site, blasting not required
- Demobilized D4

March 23, 2006

- Wayne inspected site, performed minor clean up

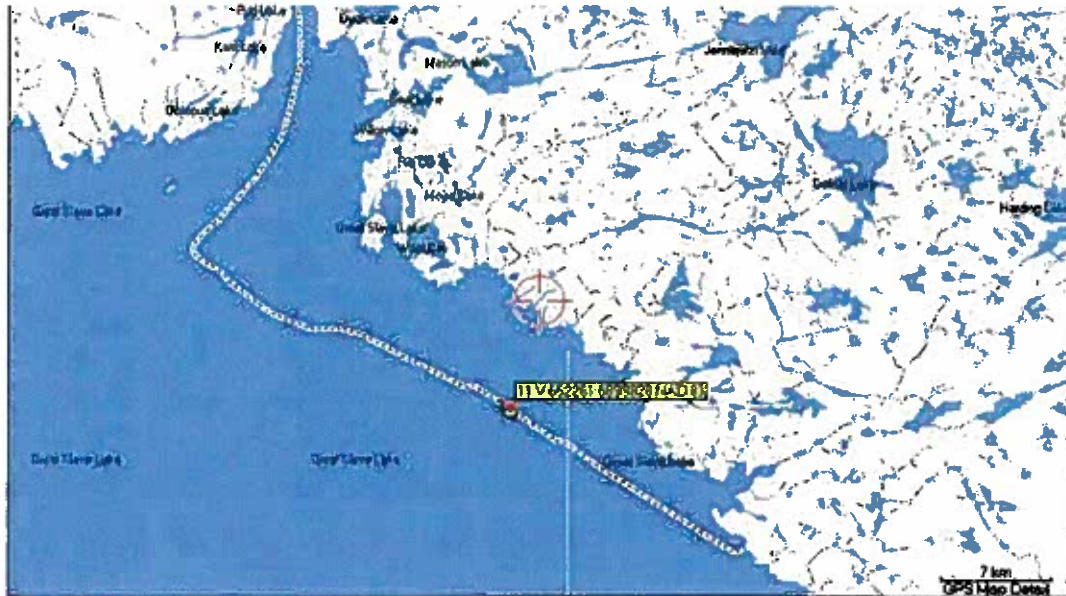
Routine inspections ongoing.....

The map displays the Lake Superior coastline with 14 shipwreck sites marked by numbered labels and color-coded boxes. The sites are distributed along the coast from Sault Ste. Marie in the north to Marquette in the south. The map includes major lakes (Superior, Michigan, Huron, Erie, Ontario), rivers (St. Marys, St. Ignace, St. Ignace, St. Ignace), and towns (Sault Ste. Marie, Marquette, Sault Ste. Marie, Sault Ste. Marie). A scale bar indicates 10 km.

Drill Log performed March 7, 2006:



March 14, 2006 Accident Location:



March 15, 2006 Inspection, Drill holes:

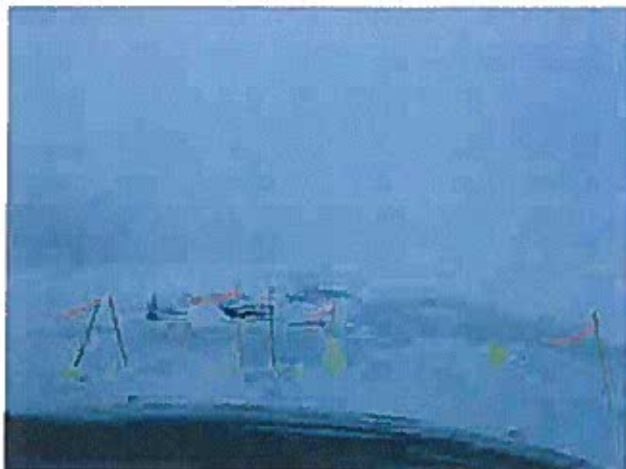


March 15, 2006 Inspection, Drill Hole Log:

Snowfield
March 14, 2006 Breakthrough
March 15, 2006 Inspection Results
Grid: UTM
Datum: NAD 83

Waypoint Name	Date & Time Recorded	Waypoint Location
11 V 652268 6899832 NAD 83	3/15/2006 3:55:05 PM	11 V 652268 6899832 Theoretical center of breakthru
37"	15-MAR-06 12:46:28PM	11 V 652256 6899834 drill hole
37"	15-MAR-06 12:38:48PM	11 V 652254 6899843 drill hole
38.5"	15-MAR-06 12:50:28PM	11 V 652268 6899822 drill hole
39"	15-MAR-06 12:42:17PM	11 V 652258 6899844 drill hole
40"	15-MAR-06 12:53:08PM	11 V 652281 6899824 drill hole
40"	15-MAR-06 12:57:36PM	11 V 652269 6899838 drill hole
Start of Road	15-MAR-06 2:17:13PM	11 V 636816 6927779

March 15, 2006 Inspection, Pictures:





March 16, 2006 Inspection, Clean up/Burn:





March 16, 2006 Inspection, "After" picture:



This report will be updated as the clean up progresses.

RTL believes it is not safe to retrieve the equipment this winter due to current ice conditions. It is RTL's intent to recover the equipment in the summer of 2006 using the following equipment:

- **"Arctic Duchess", Barge**
- **"Atha", Tug Boat**
- **Various barges and cranes**

FW: GSL, RTL Truck

-----Original Message-----

From: Kenneth Dahl [mailto:dahlk@inac-ainc.gc.ca]

Sent: April 28, 2006 10:54 AM

To: Shane Langlois

Cc: Clint Ambrose; Kenneth Dahl; donnie@rtl.ca

Subject: GSL, RTL truck

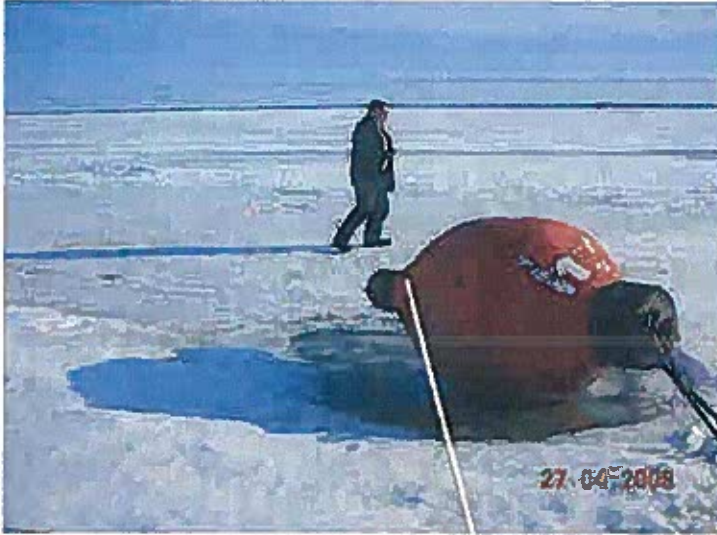
Hi Shane.

Here are a couple pictures for your reference. We were there yesterday.

It would be a good time to go back any time now for additional cleanup. There is fuel apparent at the surface of the ice. It also appears to be coming up at the cracks. A chipper, torch and absorbents would probably go a long way. If you could drill some more holes, that would also tell us what is under the ice.

Please keep us posted Shane. Thanks.

Ken



**RTL Robinson Enterprises Ltd.
Drybones Break-thru Clean-up Report
Prepared by S. Langlois, shane_langlois@rtl.ca
RTL Incident # RY-06-81**

Clean Up Summary:

May 1, 2006

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands)

On May 1, 2006 Darcy Robinson and I travelled to the site via Turbo Beaver to perform a clean up before the ice becomes unsafe to travel.

At the site we found fuel laying on the surface of the water directly over the break-thru location and where ice sheets were protruding from the surface. This fuel was burned off, the fire burned readily for approximately ten - fifteen minutes.

We then covered any areas that appeared to have fuel or oil covering the surface, over a period of about 4 hrs hours we collected one forty-five gallon drum of absorbent pads (approximately two full bundles)

We also collected some 6 x 6 timbers and some miscellaneous garbage

May 1, 2006 Burn Pix:





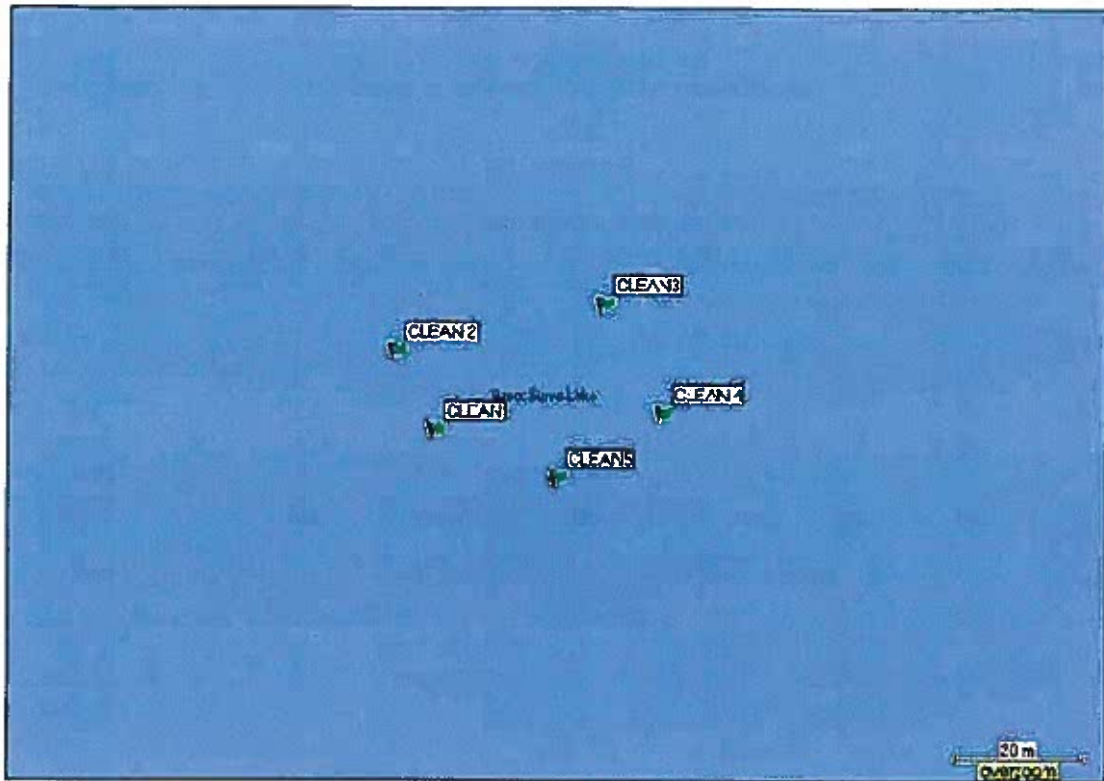
We drilled a series of holes around the site to look for pockets of fuel, none was present.

May 1, 2006 Drill Log:

Snowfield
March 14, 2006 Breakthrough
May 1, 2006 Inspection
Datum: WGS 84

Waypoint Name	Date & Time Recorded	Waypoint Location	Comments
Clean	01-MAY-06 12:07:51PM	N62 11.957 W114 04.396	drill hole, no fuel found, ice porous
Clean2	01-MAY-06 12:08:29PM	N62 11.964 W114 04.403	drill hole, no fuel found, ice porous
Clean3	01-MAY-06 12:09:33PM	N62 11.968 W114 04.365	drill hole, no fuel found, ice porous
Clean4	01-MAY-06 12:10:20PM	N62 11.959 W114 04.354	drill hole, no fuel found, ice porous
Clean5	01-MAY-06 12:11:00PM	N62 11.953 W114 04.373	drill hole, no fuel found, ice porous

May 1, 2006 Drill Locations:



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May 2, 2006

I went back to the site once again via Turbo Beaver, some fuel was present on the surface of the water, fuel appears to be trapped under ice sheets and areas that are drifted in by snow. An in-situ burn was completed and two more bundles of absorbent pads were used and taken back to YK for disposal.

The drill holes previously drilled on May 1, 2006 were inspected again, no fuel was found.

May 2, 2006 Burn Pix:



If ice conditions continue to remain safe, RTL has tentatively scheduled a flight for May 8, 2006 to inspect the site one last time.

**RTL Robinson Enterprises Ltd.
Drybones Break-thru Clean-up Report
Prepared by S. Langlois, shane_langlois@rtl.ca
RTL Incident # RY-06-81**

Clean Up Summary:

May 10, 2006

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands)

On May 10, 2006 John Tyler and I travelled to the site via Bell 206 Jet Ranger to perform a clean up.

At the site we found no fuel laying on the surface of the water directly over the break-thru location. We did find one small pocket of fuel in an area that was snow covered on May 1, 2006. This fuel was burned off, the fire burned for approximately five minutes.

There was a non flammable milky residue that was wind blown to the west side of the open water, this was soaked up with absorbent pads and flown to YK.

We also collected the remaining miscellaneous garbage.

The pilot felt it was unsafe to land the helicopter on the ice; we exited the machine while under power and performed the clean up while the chopper waited on shore. The ice had "candled" about 12" from the surface; water is also collecting at this point beneath the rotten ice.

Due to ice conditions, and the fact that it is not safe to land the chopper we will not be performing any further inspections this winter.

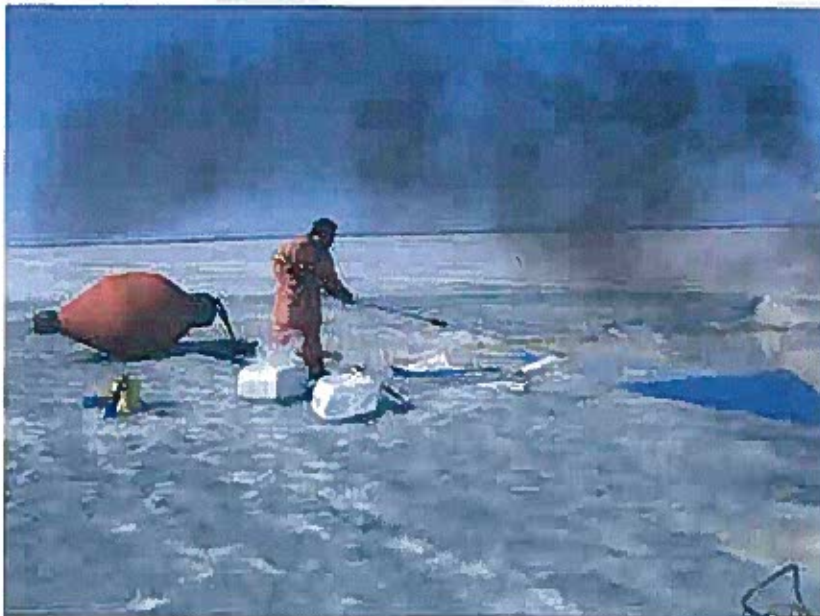
May 10, 2006 Burn Pix:



May 10, 2006 Aerial Pix:



May 10, 2006 Clean Up Pix:



May 10, 2006 Ice Condition Pix:



Subject: truck/hoe removal

-----Original Message-----

From: Shane Langlois [mailto:shane_langlois@rtl.ca]

Sent: June 6, 2006 9:35 AM

To: 'Kenneth Dahl'

Cc: 'donnie@rtl.ca'

Subject: RE: truck/hoe removal

Ken

I was actually just going to email you; RTL inspected the site this past weekend, although it was a little windy, the site as marked by the Buoy was circled several times by boat. No oil or fuel was evident on the surface of the water.

RTL will continue to monitor the site.

Are you available to meet in the next few days?

Regards,

Shane

-----Original Message-----

From: Kenneth Dahl [mailto:dahlk@inac-ainc.gc.ca]

Sent: June 6, 2006 9:27 AM

To: Shane Langlois

Cc: Clint Ambrose; donnie@rtl.ca

Subject: truck/hoe removal

Good morning Shane.

Env. Canada was asking if you had a schedule for removing the equipment from GSL. Both parties would like to observe the extraction. Can you give us some idea of when and what is being planned?

Thanks and talk to you soon.

Ken

Subject: Drybones Update

-----Original Message-----

From: Shane Langlois [mailto:shane_langlois@rtl.ca]

Sent: June 27, 2006 10:55 AM

To: 'Kenneth Dahl'

Cc: 'Clint Ambrose'; cheryl@rtl.ca

Subject: Drybones Update

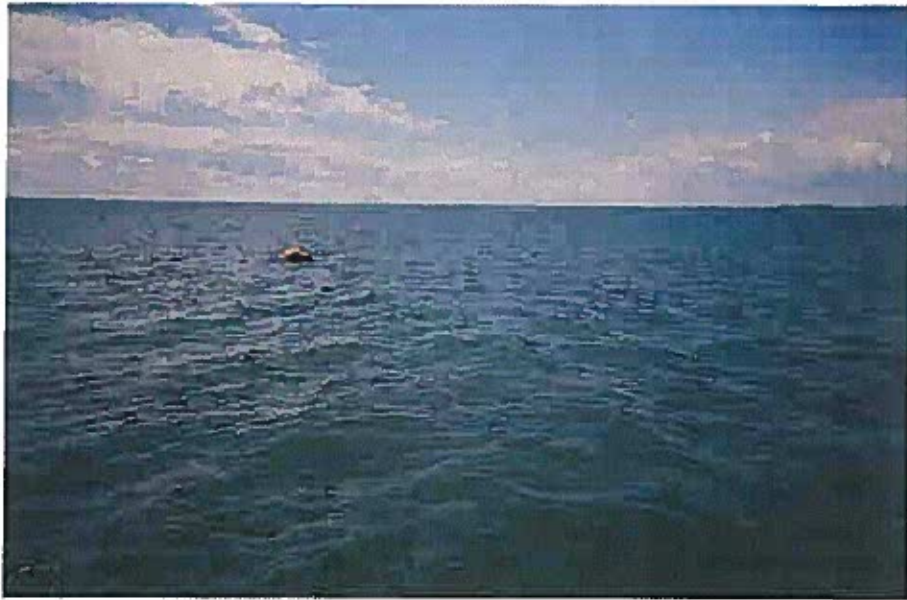
Ken

FYI:

RTL inspected the incident site at Drybones Bay Sunday June 25, 2006. Waves were about 12" high; wind about 7 knots, no leakage was noted. Some pictures were taken; I will include them in tomorrows meeting.

Regards,

Shane



Subject: Meeting

-----Original Message-----

From: Shane Langlois [mailto:shane_langlois@rtl.ca]

Sent: June 27, 2006 11:00 AM

To: CooperK@DFO-MPO.GC.CA; 'Kenneth Dahl'; 'Clint Ambrose'; craig.broome@ec.gc.ca; watson@df-mpo.gc.ca

Cc: cheryl@rtl.ca

Subject: Meeting

Gentleman

I have arranged for a 2pm meeting at RTL's second floor boardroom for Wednesday June 28 to discuss the Drybones Bay Incident. The following have been invited:

- Ken Dahl, Clint Ambrose & Ed Hornby from INAC
- Craig Broome from EC
- Ernie Watson from Fisheries

Unfortunately Ken Cooper from the Coast Guard is not available, however, we did have a discussion about the incident and I will forward him a complete package of the clean up/inspection reports to date.

If there is anyone else that should attend, please let me know.

Regards,

Shane

From: "Shane Langlois" <shane_langlois@rtl.ca>
To: "Kenneth Dahl" <dahlk@inac-ainc.gc.ca>
Date: 4/20/2007 9:05:30 AM
Subject: Drybones Breakthrough, April 2007 Inspection

Gentlemen

Please find the attached Inspection Report for the Drybones Breakthrough. RTL will also inspect this site this upcoming summer. If you have any questions, don't hesitate to call.

Regards,

Shane

CC: "Clint Ambrose" <ambrosec@inac-ainc.gc.ca>, <craig.broome@ec.gc.ca>, <WatsonE@DFO-MPO.GC.CA>, "Russell, Ken [Yel]" <Ken.Russell@EC.GC.CA>, "Drumond, Steve" <DRUMONS@tc.gc.ca>, "Kate O'Connor" <kate_oconnor@rtl.ca>, "Larry_Fairbairn@Rtl. Ca" <larryf@rtl.ca>, "Donnie Robinson" <donnie@rtl.ca>

RTL Robinson Enterprises Ltd.
Drybones Break-thru Inspection Report
Prepared by S. Langlois, shane_langlois@r.tl.ca
RTL Incident # RY-06-81

Inspection Summary:

April 17, 2007

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands)

On April 17, 2007 Peter Good and I travelled to the site via Bell 206 Jet Ranger to perform a site inspection, the plan was to drill holes through the ice at the incident site and around the perimeter to inspect for hydrocarbons.

We drilled six holes through the ice surrounding the incident location. There was no fuel or oil visually evident in the auger fillings or in the water. Nor could we smell anything.

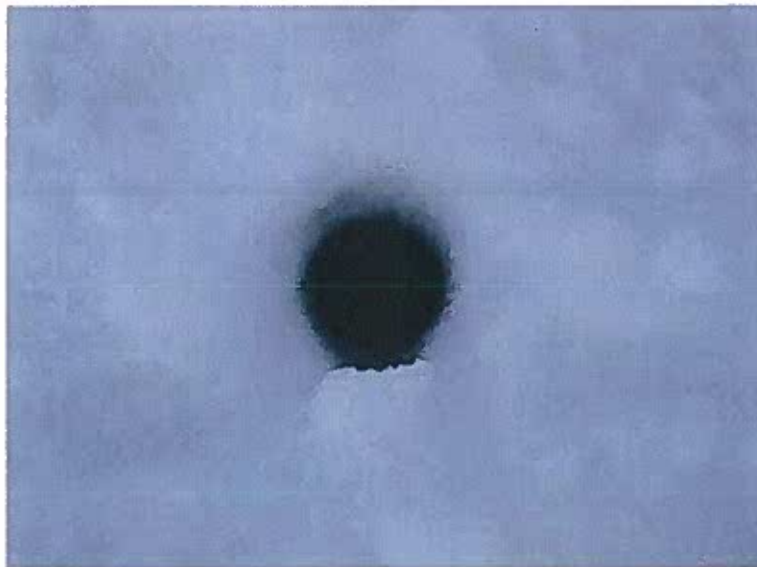
April 17, 2007 Inspection Pix:



April 17, 2007 Pix looking towards Pilot Islands:



April 17, 2007 Pix:



April 17, 2007 Pix:



April 17, 2007 Pix:



April 17, 2007 Pix:

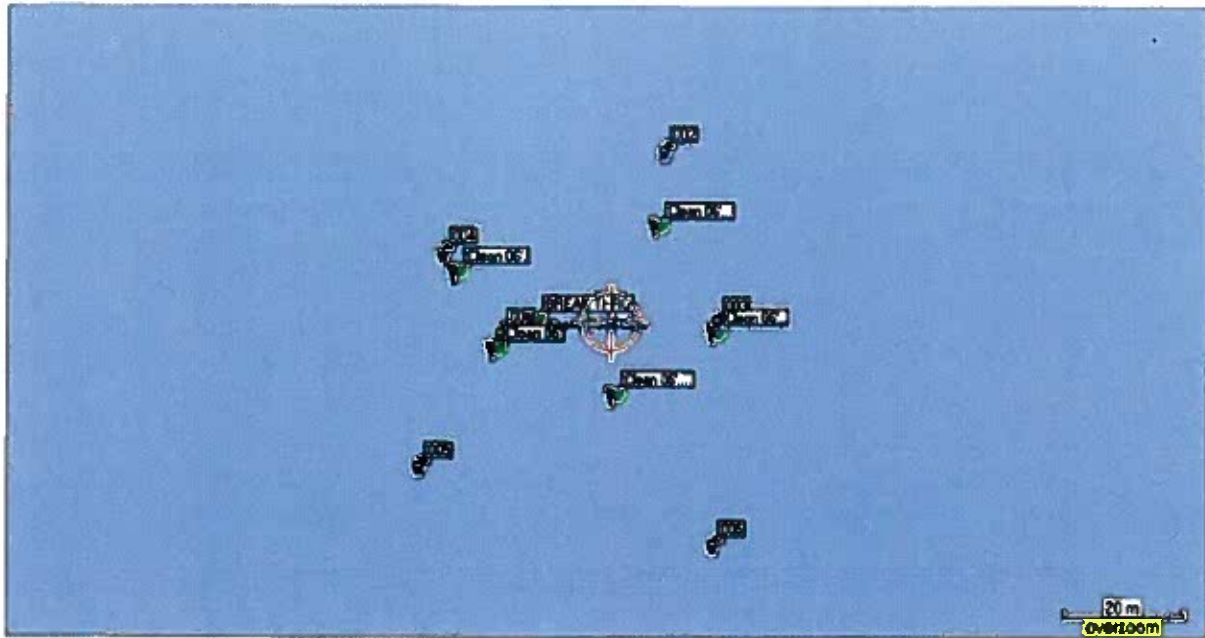


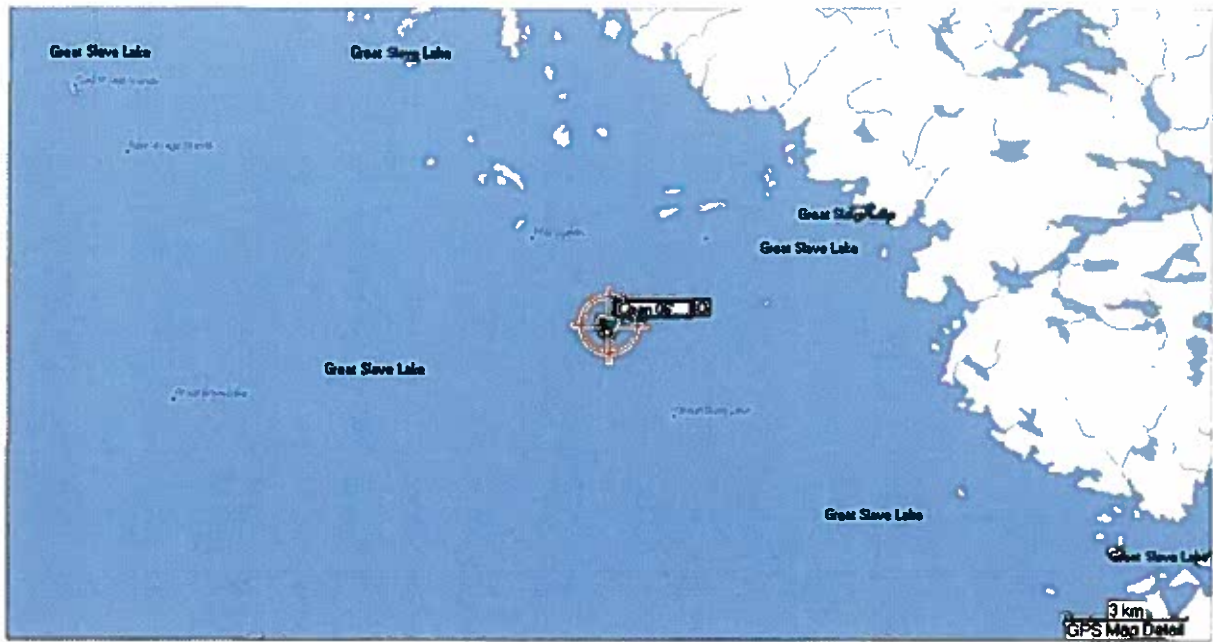
April 17, 2007 Pix:



Drybones/Snowfield
March 14, 2006 Breakthrough
April 17, 2007 Inspection
Datum: NAD 83

Waypoint	Date & Time	Location	Comments
1	17-APR-07 11:12:14AM	N62 11.959 W114 04.395	Auger Hole, clean no smell
2	17-APR-07 11:29:24AM	N62 11.975 W114 04.364	Auger Hole, clean no smell
3	17-APR-07 11:30:16AM	N62 11.960 W114 04.354	Auger Hole, clean no smell
4	17-APR-07 11:37:28AM	N62 11.966 W114 04.405	Auger Hole, clean no smell
5	17-APR-07 11:41:21AM	N62 11.947 W114 04.410	Auger Hole, clean no smell
6	17-APR-07 11:42:53AM	N62 11.940 W114 04.354	Auger Hole, clean no smell
BREAK THRO	01-MAY-06 8:40:26AM	N62 11.960 W114 04.388	May 2006 Auger Locations
Clean 06'	01-MAY-06 12:07:51PM	N62 11.957 W114 04.396	May 2006 Auger Locations
Clean 06'	01-MAY-06 12:08:29PM	N62 11.964 W114 04.403	May 2006 Auger Locations
Clean 06'..	01-MAY-06 12:10:20PM	N62 11.959 W114 04.354	May 2006 Auger Locations
Clean 06'...	01-MAY-06 12:09:33PM	N62 11.968 W114 04.365	May 2006 Auger Locations
Clean 06'....	01-MAY-06 12:11:00PM	N62 11.953 W114 04.373	May 2006 Auger Locations





From: "Shane Langlois" <shane_langlois@rtl.ca>
To: "Clint Ambrose" <ambrosesec@inac-ainc.gc.ca>
Date: Monday, August 06, 2007 5:01:24 PM
Subject: RTL Break Through Site Inspection

Clint

Re: RTL Equipment, Drybones Bay, August Inspections

On Aug 3, 2007 RTL performed an inspection of the "Break Through" location SE of the Pilot Islands located at N62.19937 W114.07304. the winds were light and no hydrocarbons were evident in the water.

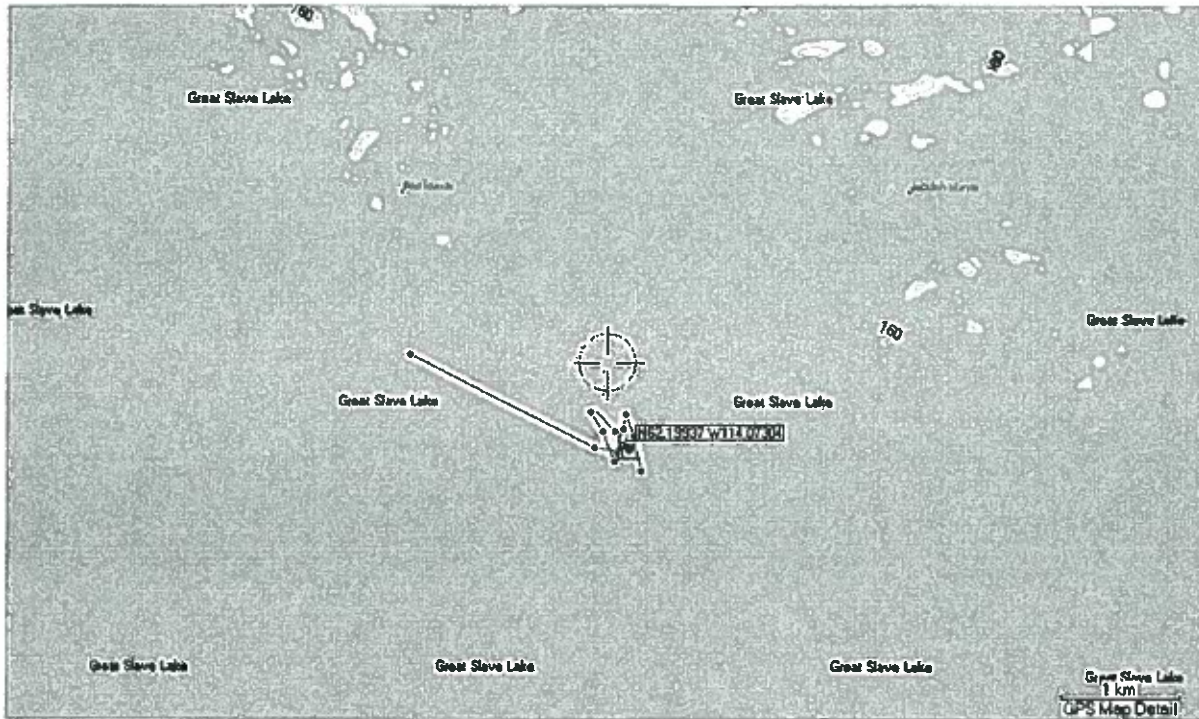
on Aug 6, 2007 the location was inspected again under windier conditions, the inspection was concentrated down wind of the "Break Through" location. again, no hydrocarbons were found.

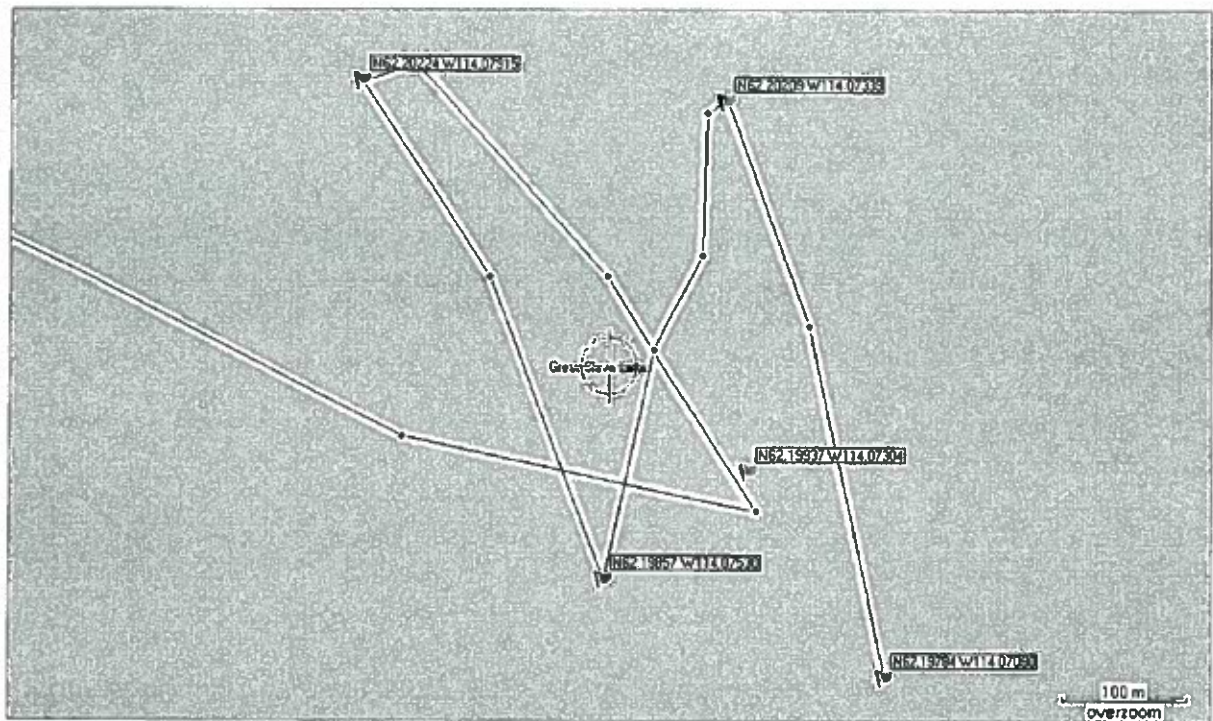
Please see the attached maps that show the locations inspected. We will endeavour to continue monitoring the site.

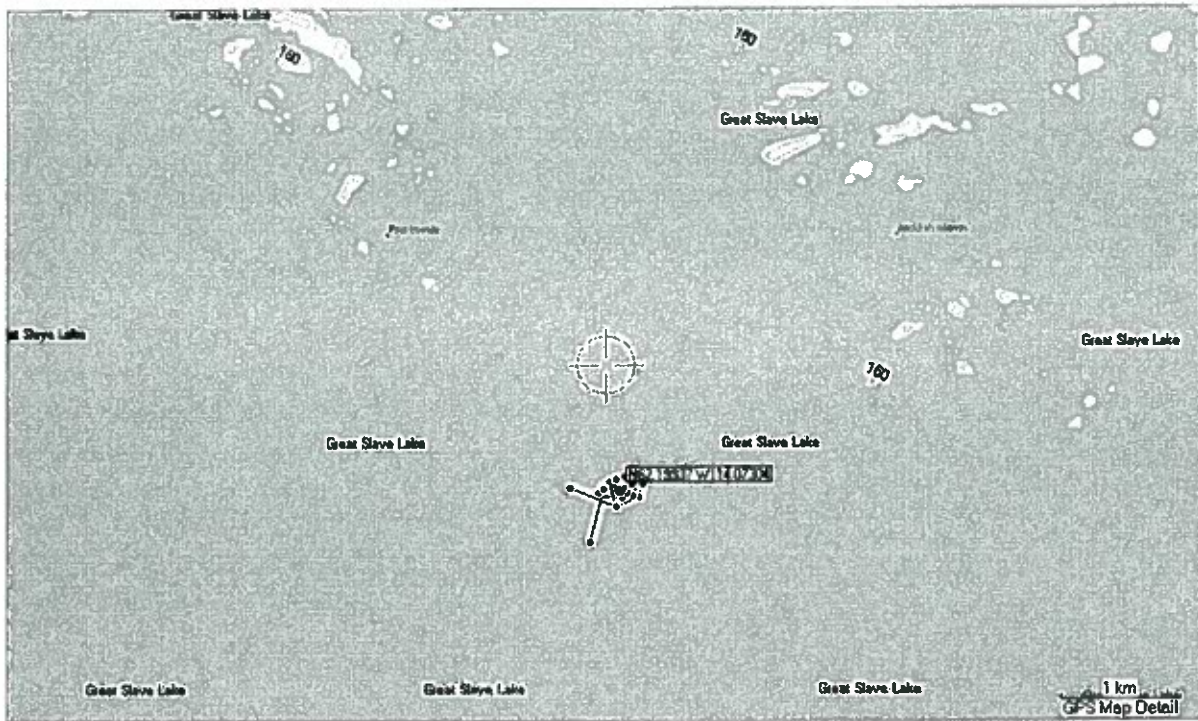
Regards,

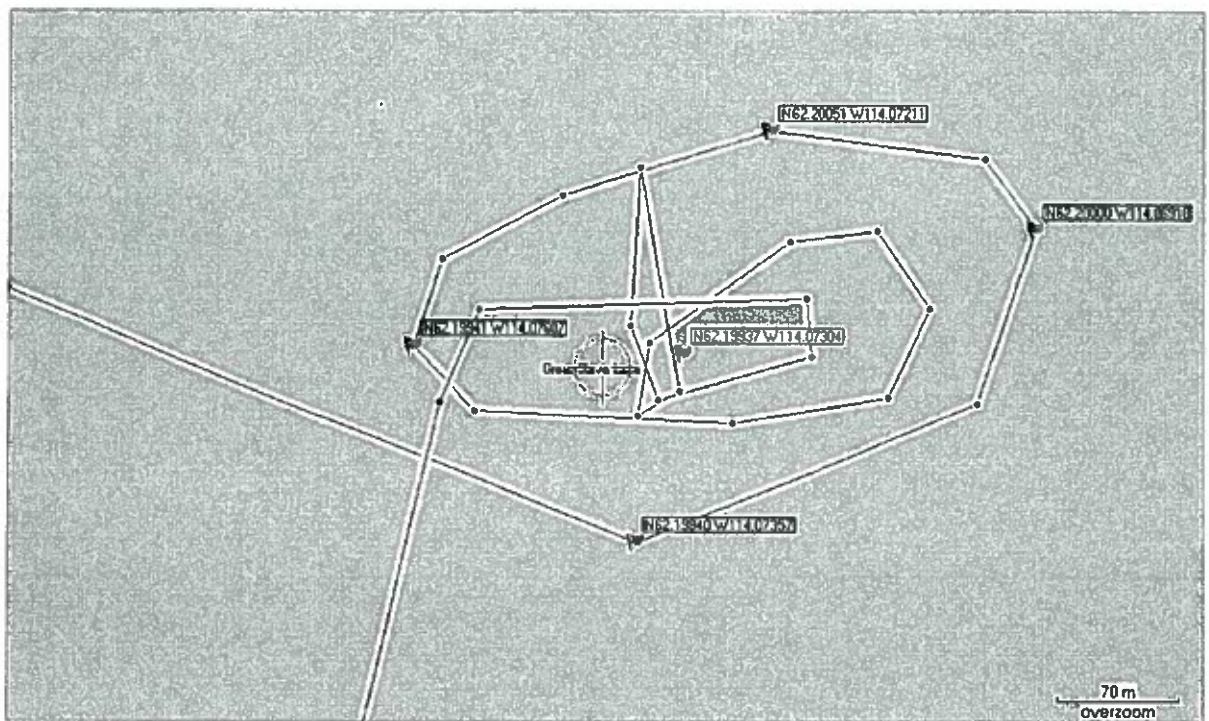
Shane

CC: "Candace McQuatt" <candace_mcquatt@rtl.ca>, "larry wheaton" <larry_wheaton@rtl.ca>, "Tim Zehr" <tim_zehr@rtl.ca>









From: "Shane Langlois" <shane_langlois@rtl.ca>
To: "Clint Ambrose" <ambrosec@inac-ainc.gc.ca>
Date: Tuesday, September 11, 2007 7:47:00 AM
Subject: RTL Break Through Inspection

Clint

Re: RTL Equipment, Drybones Bay, September Inspections

On Sept 1, 2007 RTL performed an inspection of the "Break Through" location SE of the Pilot Islands located at N62.19937 W114.07304. the winds were light and no hydrocarbons were evident in the water. Please forward this onto DFO and EC if you don't mind.

Please see the attached maps that show the locations inspected. We will endeavour to continue monitoring the site.

Regards,

Shane

CC: "Candace McQuatt" <candace_mcquatt@rtl.ca>, "Larry Fairbairn" <larry_fairbairn@rtl.ca>, "larry wheaton" <larry_wheaton@rtl.ca>, "Morgan Ingram" <morgan_ingram@rtl.ca>, "Tim Zehr" <tim_zehr@rtl.ca>

**RTL Robinson Enterprises Ltd.
Drybones Break-thru Inspection Report
Prepared by S. Langlois, shane_langlois@rtl.ca
RTL Incident # RY-06-81**

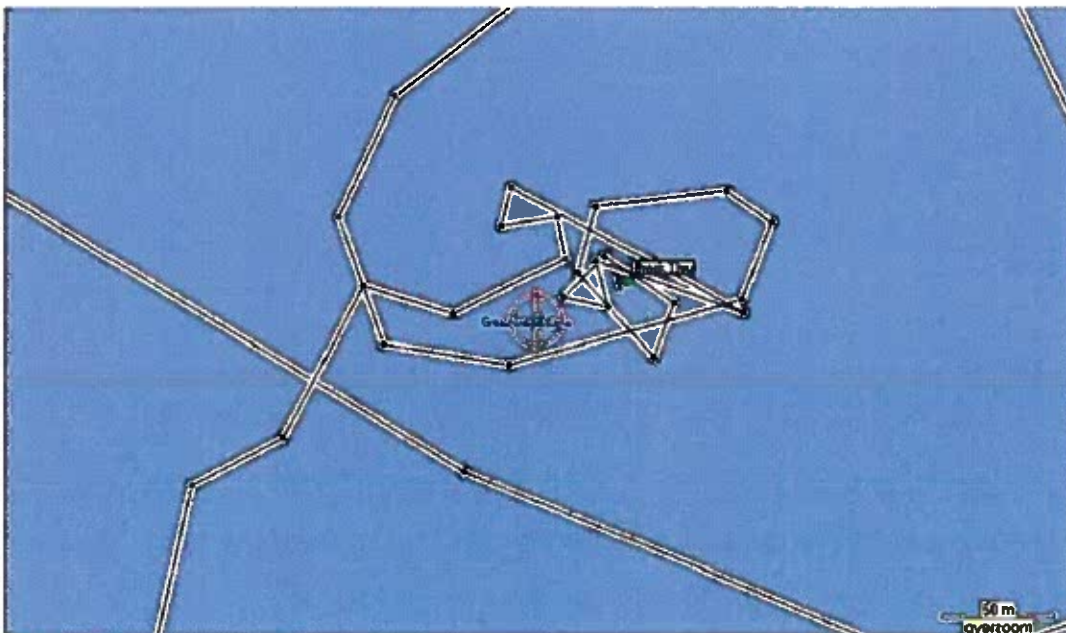
Inspection Summary:

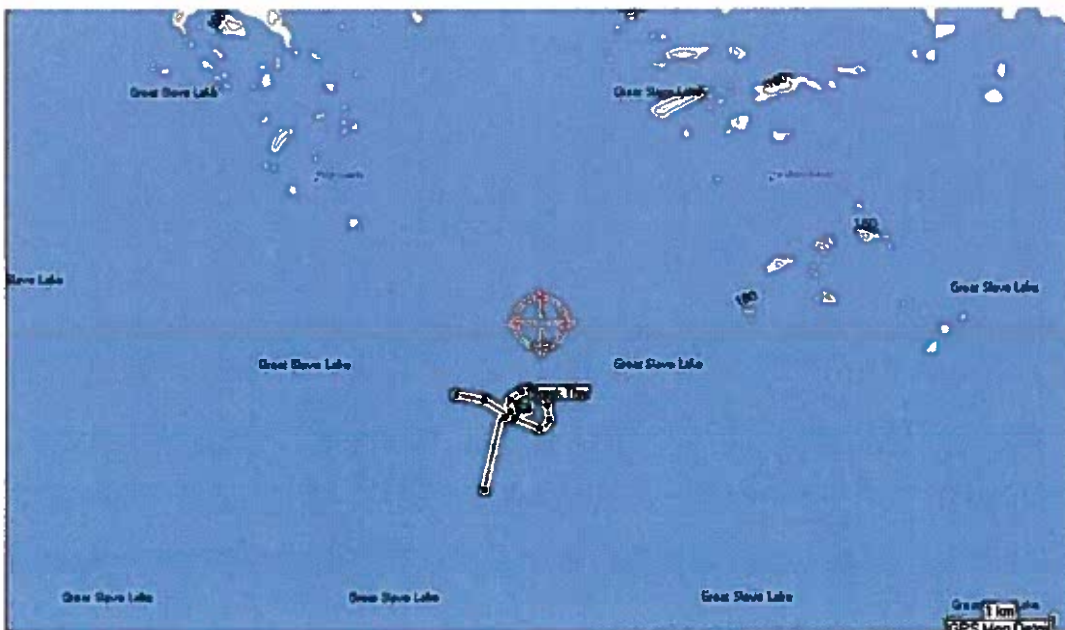
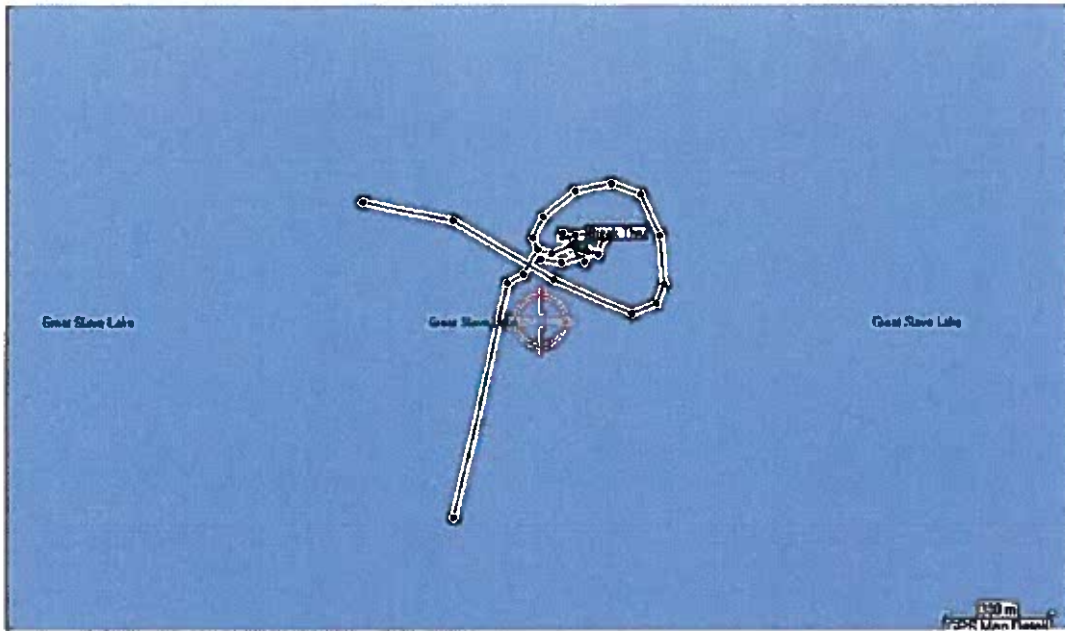
Sept 1, 2007

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands)

On Sept 7, 2007 Larry Fairbairn & I traveled to the “break thru” location SE of the Pilot Islands to inspect for hydrocarbons. The winds very light, the water calm, the area was circled several times. There was no evidence of Hydrocarbons in the water.

Sept 1, 2007 Inspection Tracks





Sept 1, 2007 Inspection Track Coordinate List

Drybones Break Through Inspection		
Sept 1, 2007 Inspection		
Track Coordinates		
Datum: NAD 83		
1	102° true	N62 12 01.9 W114 05 04.2
2	121° true	N62 12 00.3 W114 04 47.1
3	113° true	N62 11 54.9 W114 04 28.0
4	70° true	N62 11 51.9 W114 04 12.8
5	21° true	N62 11 52.7 W114 04 08.0
6	354° true	N62 11 54.5 W114 04 06.5
7	335° true	N62 11 58.9 W114 04 07.4
8	291° true	N62 12 02.6 W114 04 11.1
9	257° true	N62 12 03.6 W114 04 16.8
10	232° true	N62 12 02.8 W114 04 23.8
11	205° true	N62 12 00.5 W114 04 30.2
12	160° true	N62 11 58.7 W114 04 32.0
13	99° true	N62 11 56.8 W114 04 30.6
14	74° true	N62 11 56.5 W114 04 26.5
15	21° true	N62 11 57.4 W114 04 19.2
16	304° true	N62 11 58.6 W114 04 18.2
17	263° true	N62 11 59.1 W114 04 19.7
18	194° true	N62 11 58.8 W114 04 23.8
19	140° true	N62 11 57.9 W114 04 24.4
20	21° true	N62 11 56.6 W114 04 22.1
21	305° true	N62 11 57.4 W114 04 21.4
22	225° true	N62 11 58.1 W114 04 23.5
23	102° true	N62 11 57.5 W114 04 24.8
24	344° true	N62 11 57.3 W114 04 23.4
25	110° true	N62 11 58.0 W114 04 23.8
26	299° true	N62 11 57.3 W114 04 19.2
27	194° true	N62 11 59.1 W114 04 26.5
28	81° true	N62 11 58.6 W114 04 26.7
29	168° true	N62 11 58.7 W114 04 25.0
30	244° true	N62 11 58.1 W114 04 24.7
31	288° true	N62 11 57.2 W114 04 28.3
32	208° true	N62 11 57.7 W114 04 31.2
33	242° true	N62 11 55.4 W114 04 33.8
34	193° true	N62 11 54.7 W114 04 36.7
35		N62 11 33.7 W114 04 46.9

**RTL Robinson Enterprises Ltd.
Pilot Islands Break-thru Inspection Report
Prepared by S. Langlois, shane_langlois@rtl.ca
RTL Incident # RY-06-81**

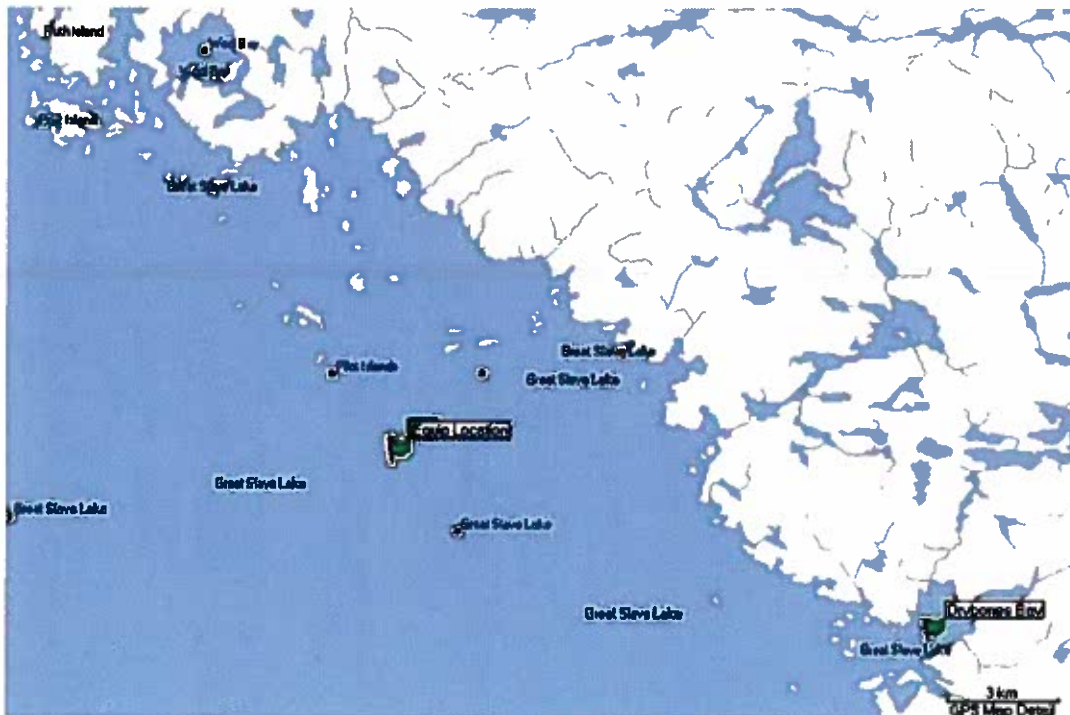
Inspection Summary:

April 12, 2008

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands, 14+ km NW of Drybones Bay)

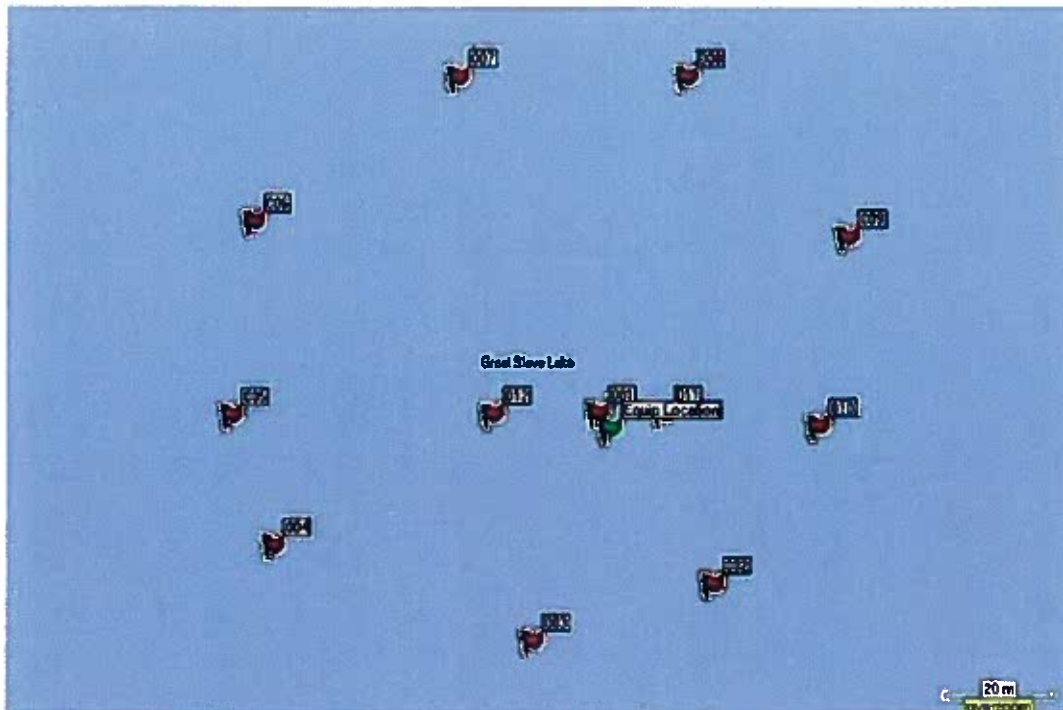
On April 12, 2008 Larry Kish & I traveled to the "break thru" location 14 Km's NW of Drybones Bay to inspect for hydrocarbons. We drilled nine test holes through the ice at approximately a 50 m radius around the equipment and three more directly above. All of the ice and water samples inspected showed no visual evidence of Hydrocarbons in the water and no smell. All water was clear and cold and the snow and ice was pure with no residue. We actually drank it.

April 12, 2008 Inspection Location



LA.

April 12, 2008 Inspection, Waypoint Locations



April 12, 2008 Inspection, Track Coordinate List

Drybones Break Through Inspection			
April 12, 2008 Inspection			
Test Hole Coordinates			
Datum: NAD 83			
Point Name	Date & Time Recorded	Location (UTM)	Elevation
1	12-APR-08 2:06:28PM	11 V 652264 6899835	155 m
2	12-APR-08 2:07:37PM	11 V 652286 6899804	153 m
3	12-APR-08 2:08:28PM	11 V 652253 6899792	151 m
4	12-APR-08 2:09:23PM	11 V 652205 6899807	153 m
5	12-APR-08 2:09:54PM	11 V 652196 6899831	153 m
6	12-APR-08 2:10:44PM	11 V 652199 6899867	150 m
7	12-APR-08 2:11:41PM	11 V 652235 6899895	149 m
8	12-APR-08 2:12:31PM	11 V 652277 6899897	151 m
9	12-APR-08 2:13:25PM	11 V 652308 6899869	153 m
10	12-APR-08 2:14:02PM	11 V 652305 6899834	155 m
11	12-APR-08 2:14:36PM	11 V 652276 6899835	154 m
12	12-APR-08 2:15:13PM	11 V 652244 6899833	154 m
Equip Location	GREAT SLAVE LAKE	11 V 652266 6899832	

April 12, 2008 Inspection, Test Hole Pictures





RTL Robinson Enterprises Ltd.
Pilot Islands Break-thru Inspection Report
Prepared by S. Langlois, shane_langlois@rtl.ca
RTL Incident # RY-06-81

Inspection Summary:

June 27, 2008

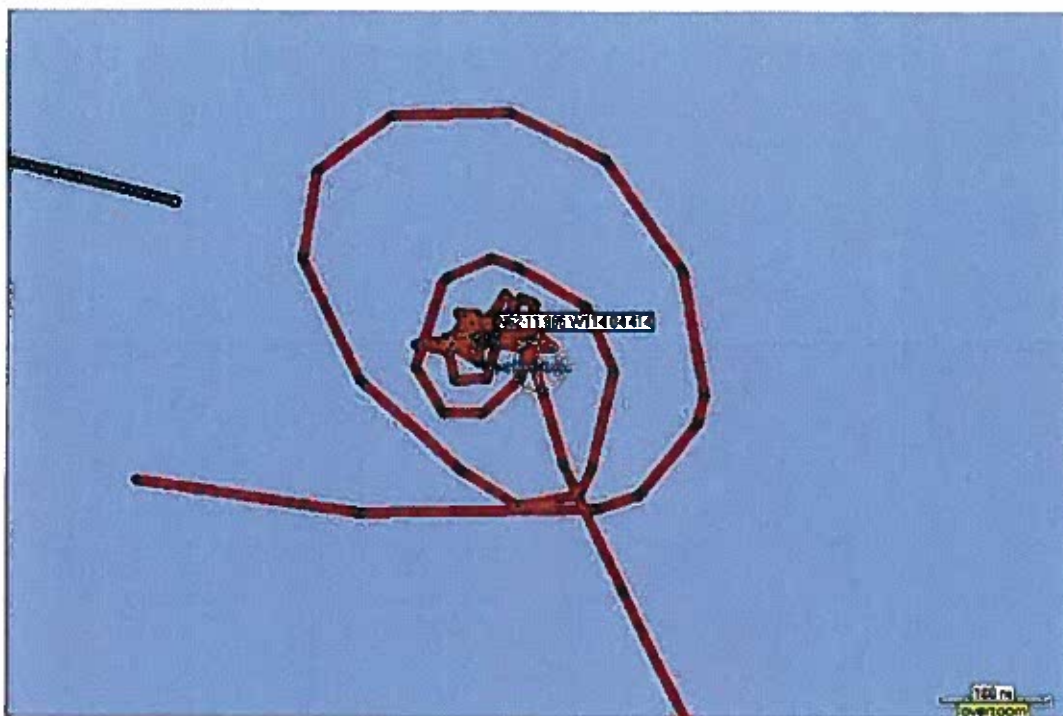
Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands, 14+ km NW of Drybones Bay)

On June 27, 2008 Larry Fairbairn & I traveled to the "break thru" location 14 Km's NW of Drybones Bay to inspect for hydrocarbons. Winds were light at approximately 10km per hour, we circled the incident location for several minutes, NO hydrocarbons were evident, there was NO sheen on the water whatsoever, we touched the water in several areas. No smell was evident and NO oily residue was found. All water was clear and cold.

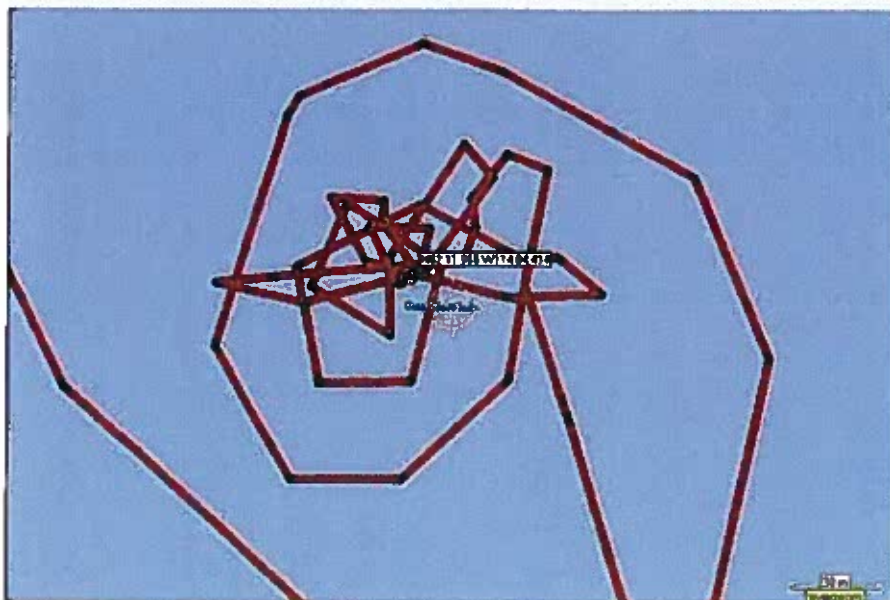
June 27, 2008 Inspection Location



June 27, 2008 Inspection



June 27, 2008 Inspection



**RTL Robinson Enterprises Ltd.
Pilot Islands Break-thru Inspection Report
Prepared by S. Langlois, shane_langlois@rtl.ca
RTL Incident # RY-06-81**

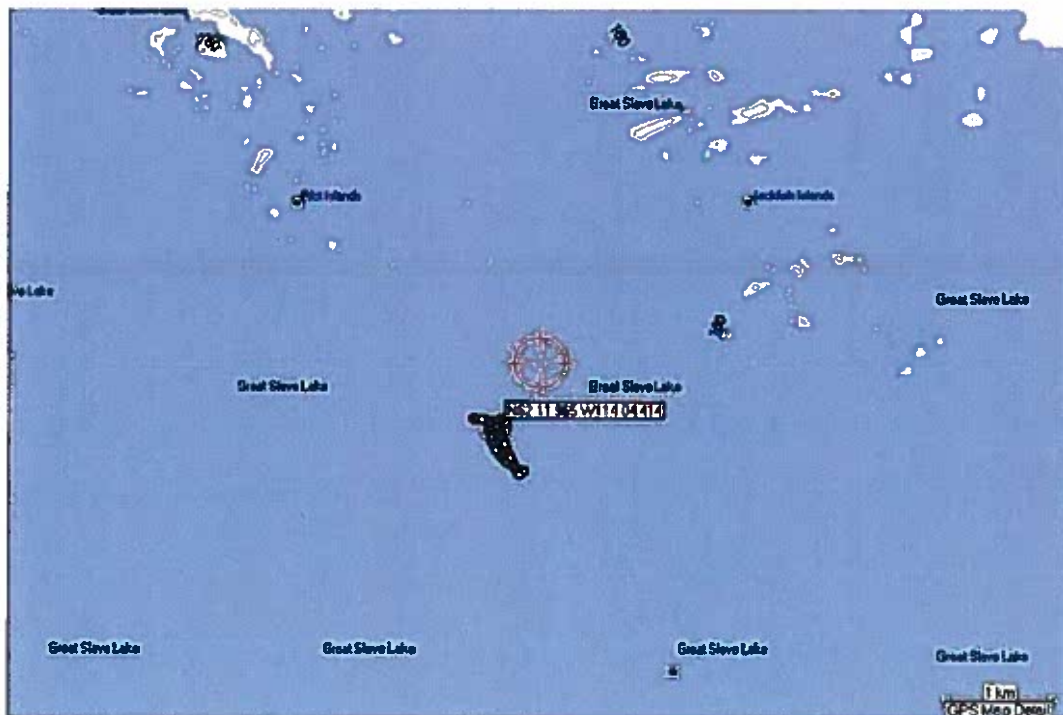
Inspection Summary:

July 5, 2008

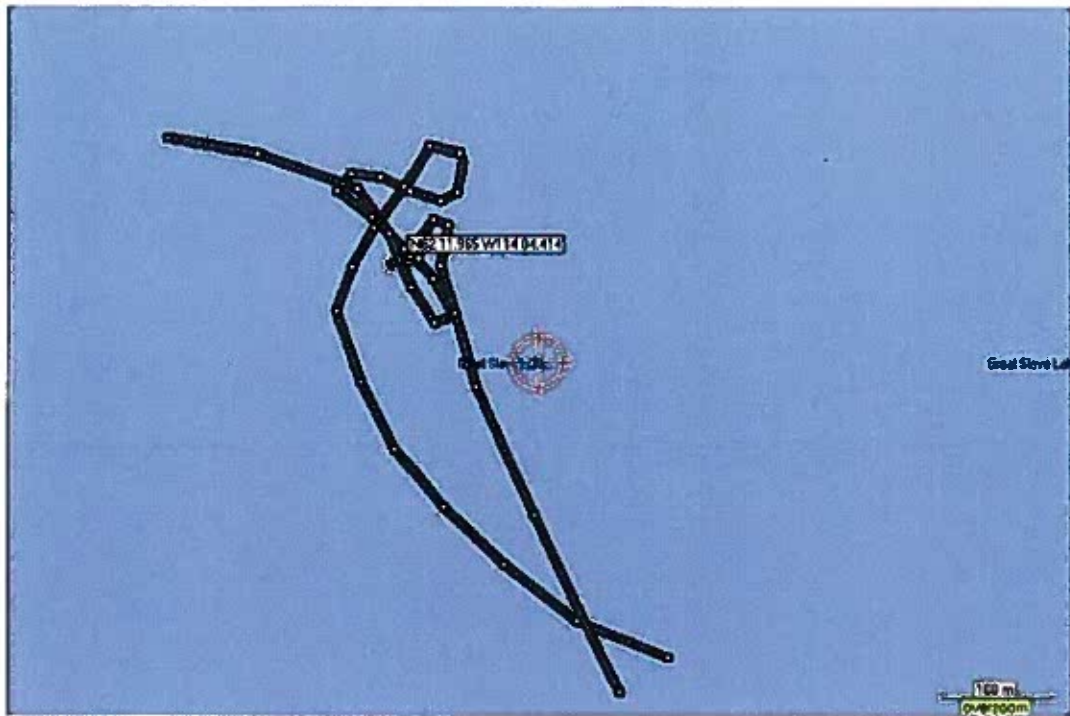
Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands, 14+ km NW of Drybones Bay)

On July 5, 2008 Larry Fairbairn & I traveled to the "break thru" location 14 Km's NW of Drybones Bay to inspect for hydrocarbons. Winds were approximately 15 km per hour, we travelled back and forth by boat over the incident location for several minutes, NO hydrocarbons were evident, there was NO sheen on the water whatsoever, we touched the water in several areas. No smell was evident and NO oily residue was found. All water was clear and cold.

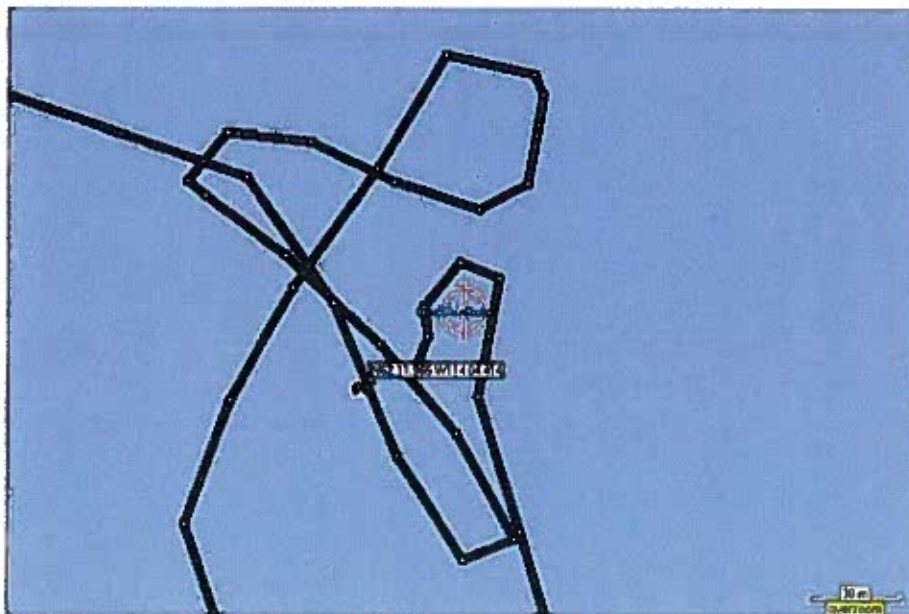
July 5, 2008 Inspection Location



July 5, 2008 Inspection



July 5, 2008 Inspection



**RTL Robinson Enterprises Ltd.
Pilot Islands Break-through Inspection Report
Prepared by S. Langlois, shane.langlois@rtl.ca
RTL Incident # RY-06-81**

Inspection Summary:

April 16, 2009

Location:

Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832 (approximately 3.5 km SE of Pilot Islands, 14+ km NW of Drybones Bay)

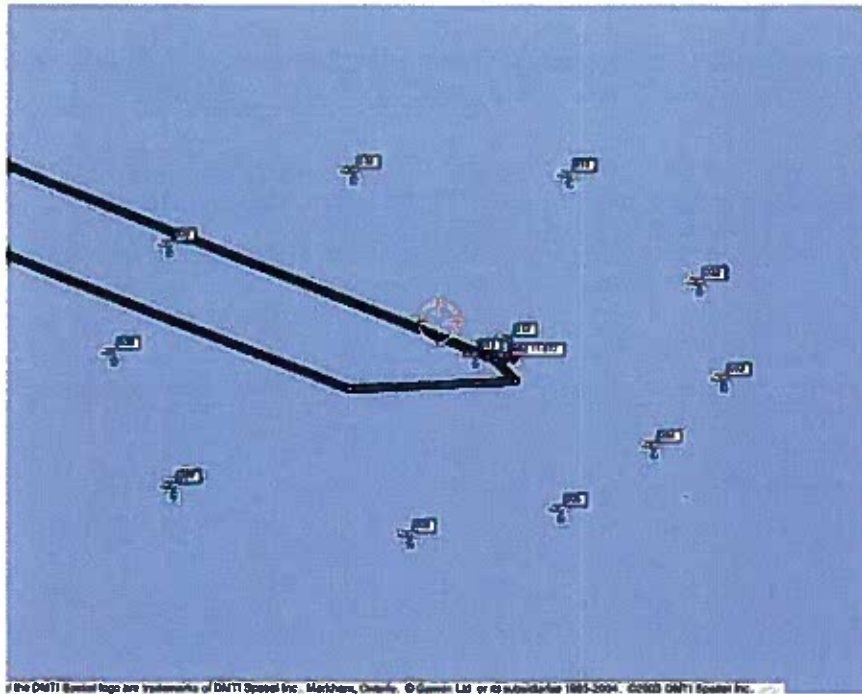
Inspection Details:

On April 16, 2009 I traveled to the "break-through" location 14 Km's NW of Drybones Bay to inspect for hydrocarbons. It was pre-arranged that I meet with Clint Ambrose & Nahum Lee from Indian & Northern Affairs Canada to inspect the site. Once on site I drilled thirteen holes, two directly above the break-through location, the remaining eleven holes were drilled at approximately a thirty meter radius from the break-through site, at approximate thirty meter spacing. After each hole was drilled and no evidence of hydrocarbons were present, the auger was ran up & down in the hole to pump water up onto the ice to facilitate a better inspection. An eight inch auger was used that is large enough to allow a visual inspection of the ice in the bore hole to confirm no hydrocarbons were locked in the ice. The water, ice, ice shavings and snow indicated NO hydrocarbons were evident, there was NO sheen on the water whatsoever, I touched the water in several areas. No smell was evident and NO oily residue was found. All water was clear and cold and tasted great.

Clint & Nahum from the INAC office took water samples and performed an independent water analysis that confirms no hydrocarbons were present in the water. Please refer to the attached Lab Reports from the Taiga Environmental Laboratory for more info. Also attached are some pictures taken by INAC.

Maps/location:

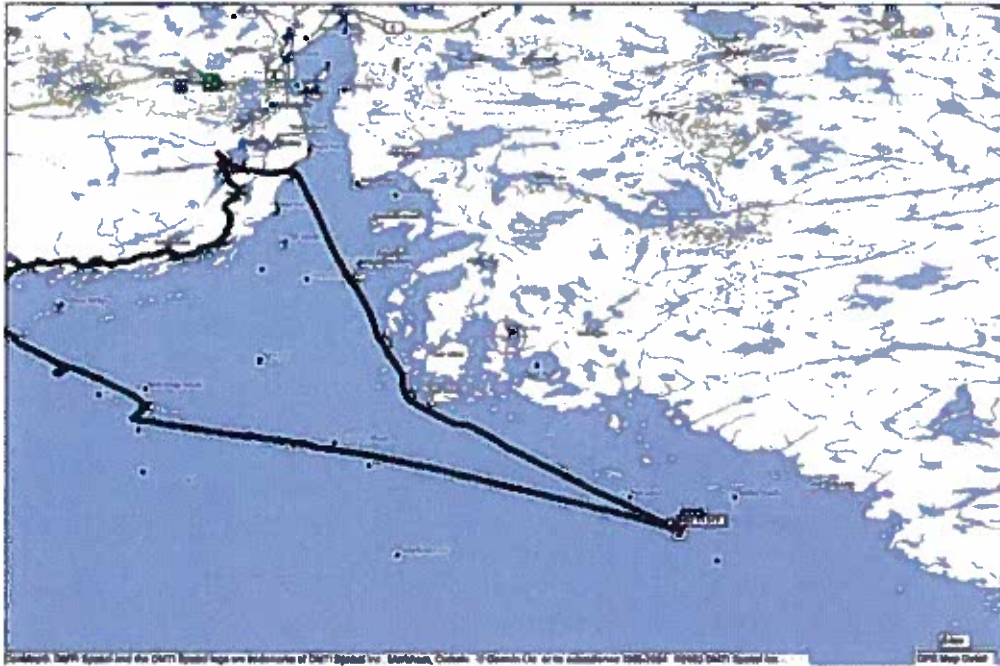
April 16, 2009 Inspection Location



April 16, 2009 Inspection Location



April 16, 2009 Inspection Location



April 16, 2009, RTL Photo's



April 16, 2009, RTL Photo's



April 16, 2009, RTL Photo's



April 16, 2009, RTL Photo's



From: Shane Langlois <Shane.Langlois@rtl.ca>
To: "Romanko,Wade [Yel]" <Wade.Romanko@EC.GC.CA>
CC: 'Clint Ambrose' <Clint.Ambrose@inac-ainc.gc.ca>, Nahum Lee <Nahum.Lee@inac-ainc.gc.ca>, Larry Fairbairn <Larry.Fairbairn@rtl.ca>, LarryWheaton <Larry.Wheaton@rtl.ca>, Tom Kenny <tkenny@westcanbulk.ca>, CandaceMcQuatt <Candace.McQuatt@rtl.ca>, "swl@theedge.ca" <swl@theedge.ca>
Date: 5/4/2009 9:43 am
Subject: FW: Water Sample Results and Photos - South of the Pilot Islands - Spill File #06-093
Attachments: RTL Lab Results.pdf; RTL Photos.pdf; Pilot Islands, April 16, 2009 Inspection.pdf

Wade

Re: RTL/INAC April 16, 2009 Inspection, South of Pilot Islands

You asked to be copied on all inspections that are being performed seasonally near the Pilot Islands where RTL lost some equipment back in March 2006. This email being forwarded to you is from Clint Ambrose at the South Mackenzie District of Indian and Northern Affairs Canada who was present at the inspection. Please review his comments and attached documents that resulted from their April 16, 2009 inspection:

1. RTL Lab Results

2. RTL Photos

I've also attached a detailed description of the inspection/methods RTL performed on the same date. If you have any questions please give me a call.

Regards,

Shane Langlois

From: Clint Ambrose [mailto:Clint.Ambrose@inac-ainc.gc.ca]

Sent: Friday, May 01, 2009 4:42 PM

To: Shane Langlois

Cc: Nahum Lee

Subject: Water Sample Results and Photos - South of the Pilot Islands - Spill File #06-093

Good afternoon Shane,

Thanks again for meeting Nahum and myself at the equipment breakthrough site south of the Pilot Islands on Great Slave Lake.

As observed from all the holes drilled through the ice, no visible sheen or odor was detected and the water appeared to be clean and free of hydrocarbons.

Attached are the photos of the sample locations and the lab results.

If you have any questions or concerns, please do not hesitate to contact Nahum Lee at 669-2757 or myself at the numbers below.

Have a good day

Clint Ambrose

Resource Management Officer III

South Mackenzie District

Indian and Northern Affairs Canada

TEL: (867) 669-2794

CELL: (867) 446-0769

FAX: (867) 669-2720

clint.ambrose@inac.gc.ca <mailto:clint.ambrose@inac.gc.ca>

#16 Yellowknife Airport (Mailing)

140 Bristol Ave. (Street)

Yellowknife, NT

X1A 3T2

This message is intended only for the use of the addressee and may contain information that is privileged and confidential. If you are not the intended recipient you are hereby notified that any dissemination is strictly prohibited. If you have received this communication in error, please notify the sender immediately. Thank you.

**RTL Robinson Enterprises Ltd.
Pilot Islands Break-through Inspection Report
Prepared by S. Langlois, shane.langlois@rtl.ca
RTL Incident # RY-06-81**

Inspection Summary:

April 16, 2009

Location:

Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832 (approximately 3.5 km SE of Pilot Islands, 14+ km NW of Drybones Bay)

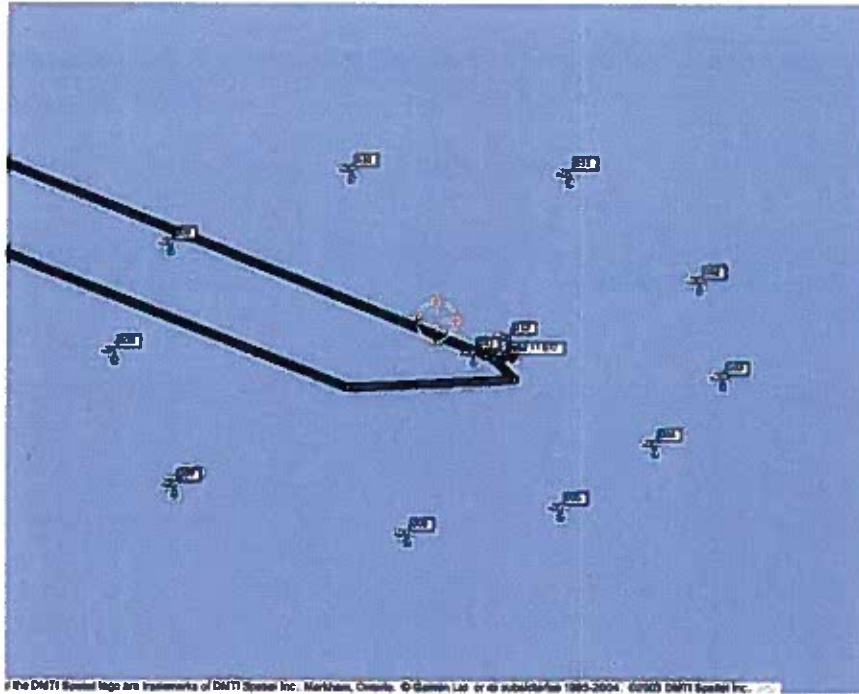
Inspection Details:

On April 16, 2009 I traveled to the "break-through" location 14 Km's NW of Drybones Bay to inspect for hydrocarbons. It was pre-arranged that I meet with Clint Ambrose & Nahum Lee from Indian & Northern Affairs Canada to inspect the site. Once on site I drilled thirteen holes, two directly above the break-through location, the remaining eleven holes were drilled at approximately a thirty meter radius from the break-through site, at approximate thirty meter spacing. After each hole was drilled and no evidence of hydrocarbons were present, the auger was ran up & down in the hole to pump water up onto the ice to facilitate a better inspection. An eight inch auger was used that is large enough to allow a visual inspection of the ice in the bore hole to confirm no hydrocarbons were locked in the ice. The water, ice, ice shavings and snow indicated NO hydrocarbons were evident, there was NO sheen on the water whatsoever, I touched the water in several areas. No smell was evident and NO oily residue was found. All water was clear and cold and tasted great.

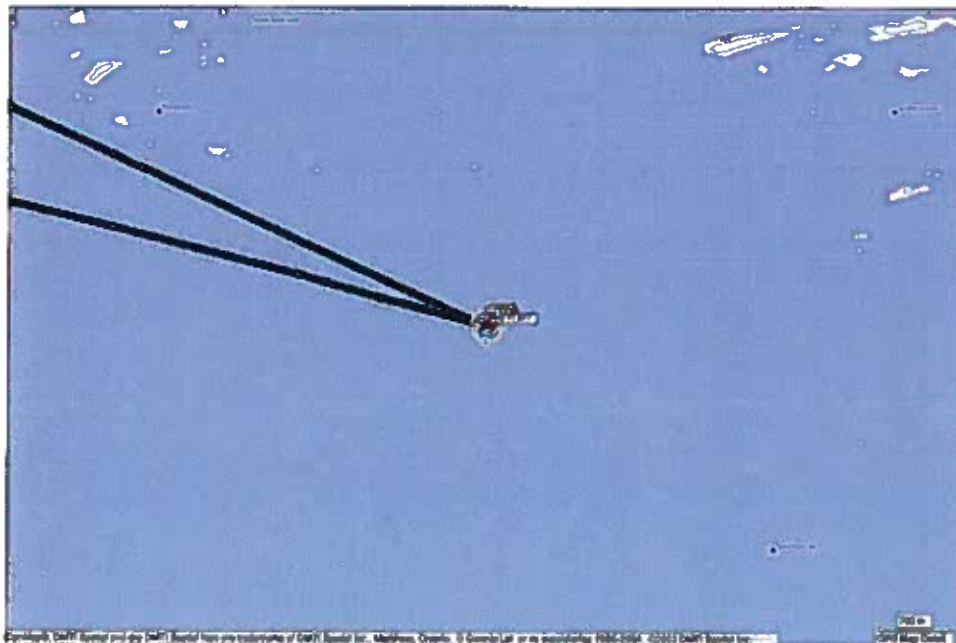
Clint & Nahum from the INAC office took water samples and performed an independent water analysis that confirms no hydrocarbons were present in the water. Please refer to the attached Lab Reports from the Taiga Environmental Laboratory for more info. Also attached are some pictures taken by INAC.

Maps/location:

April 16, 2009 Inspection Location



April 16, 2009 Inspection Location



April 16, 2009 Inspection Location



April 16, 2009, RTL Photo's



April 16, 2009, RTL Photo's



April 16, 2009, RTL Photo's

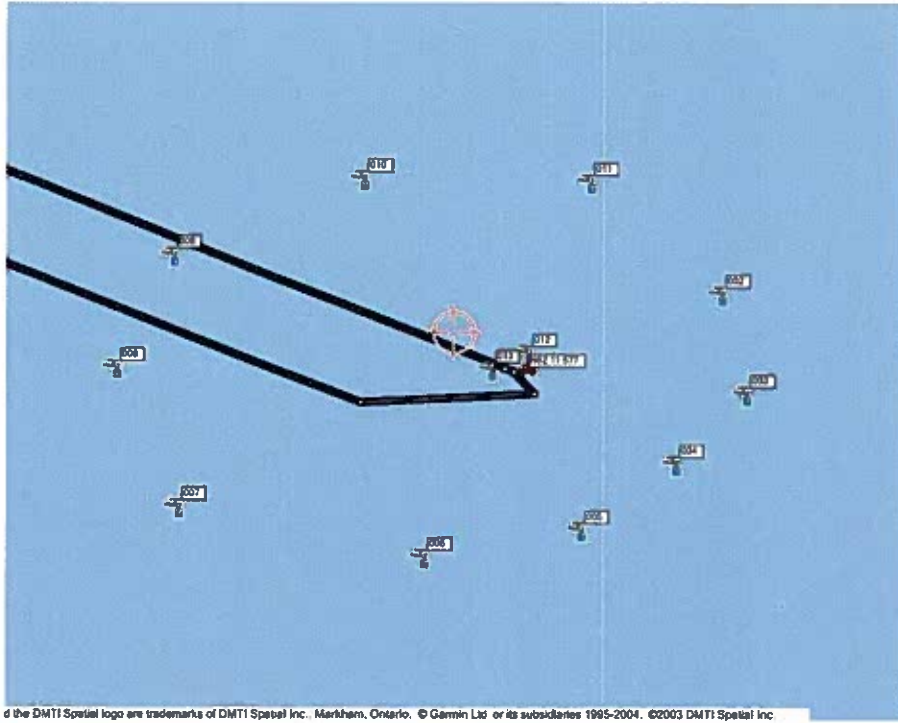


April 16, 2009, RTL Photo's



Maps/location:

April 16, 2009 Inspection Location



April 16, 2009 Inspection Location



290117



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
290117

- FINAL REPORT -

Prepared For: South MacKenzie District
DIAND

Address: 140 Bristol Ave.
Yellowknife, NT
X1A 3T2

Attn: Clint Ambrose

Facsimile: (867) 669-2720

Final report has been reviewed and approved by:



Helene Harper
Manager

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association of Environmental Analytical Laboratories (CAEAL) as a testing laboratory for specific tests registered with CAEAL.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Friday, May 01, 2009
Print Date: Friday, May 01, 2009

Page 1 of 5



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
290117

- CERTIFICATE OF ANALYSIS -

Client Sample ID: RTL #1

Taiga Sample ID: 001

Client Project:

Sample Type: Freshwater

Received Date: 17-Apr-09

Sampling Date: 16-Apr-09

Sampling Time: 15:20

Location: Great Slave Lake

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Organics						
Benzene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
Ethylbenzene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
Hexane Extractable Material	< 2.0	2.0	mg/L	24-Apr-09	EPA1664A	
m/p-xylene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
o-xylene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
Toluene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	

ReportDate: Friday, May 01, 2009
Print Date: Friday, May 01, 2009



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
290117

- CERTIFICATE OF ANALYSIS -

Client Sample ID: RTL #2

Taiga Sample ID: 002

Client Project:

Sample Type: Freshwater

Received Date: 17-Apr-09

Sampling Date: 16-Apr-09

Sampling Time: 15:20

Location: Great Slave Lake

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
Organics						
Benzene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
Ethylbenzene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
Hexane Extractable Material	< 2.0	2.0	mg/L	30-Apr-09	EPA1664A	
m/p-xylene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
o-xylene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
Toluene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	

Report Date: Friday, May 01, 2009

Print Date: Friday, May 01, 2009



Taiga Environmental Laboratory

4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
290117

- CERTIFICATE OF ANALYSIS -

Client Sample ID: RTL #3

Taiga Sample ID: 003

Client Project:

Sample Type: Freshwater

Received Date: 17-Apr-09

Sampling Date: 16-Apr-09

Sampling Time: 15:20

Location: Great Slave Lake

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Organics</u>						
Benzene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
Ethylbenzene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
Hexane Extractable Material	< 2.0	2.0	mg/L	30-Apr-09	EPA1664A	
m/p-xylene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
o-xylene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	
Toluene	< 0.005	0.005	mg/L	23-Apr-09	EPA8260B	

ReportDate: Friday, May 01, 2009

Print Date: Friday, May 01, 2009

Page 4 of 5



Taiga Environmental Laboratory

4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
290117

- CERTIFICATE OF ANALYSIS -

Client Sample ID: RTL #3

Taiga Sample ID: 003

* Taiga analytical methods are based on the following standard analytical methods
SM - Standard Methods for the Examination of Water and Wastewater
EPA - United States Environmental Protection Agency



Spill site south of the Pilot Islands - RTL Robinson Enterprises Ltd.
 Water sample for hydrocarbons "RTL #1", taken from a random hole drilled through the ice.



Spill site south of the Pilot Islands - RTL Robinson Enterprises Ltd.
 GPS showing hole location 1' from the location of where the equipment broke through the ice (Inspector's waypoint).



Spill site south of the Pilot Islands - RTL Robinson Enterprises Ltd.
RTL #2 water sample taken from the Inspectors waypoint.



Spill site south of the Pilot Islands - RTL Robinson Enterprises Ltd.
RTL #3 water sample taken from the location where the company marked the breakthrough location.

From: Shane Langlois <Shane.Langlois@rtl.ca>
To: "Romanko,Wade [Yel]" <Wade.Romanko@EC.GC.CA>
CC: 'Clint Ambrose' <Clint.Ambrose@inac-ainc.gc.ca>, Nahum Lee <Nahum.Lee@inac-ainc.gc.ca>, Larry Fairbairn <Larry.Fairbairn@rtl.ca>, LarryWheaton <Larry.Wheaton@rtl.ca>, Tom Kenny <tkenny@westcanbulk.ca>, CandaceMcQuatt <Candace.McQuatt@rtl.ca>, "swl@theedge.ca" <swl@theedge.ca>
Date: 5/4/2009 9:43 am
Subject: FW: Water Sample Results and Photos - South of the Pilot Islands -Spill File #06-093
Attachments: RTL Lab Results.pdf; RTL Photos.pdf; Pilot Islands, April 16, 2009 Inspection.pdf

Wade

Re: RTL/INAC April 16, 2009 Inspection, South of Pilot Islands

You asked to be copied on all inspections that are being performed seasonally near the Pilot Islands where RTL lost some equipment back in March 2006. This email being forwarded to you is from Clint Ambrose at the South Mackenzie District of Indian and Northern Affairs Canada who was present at the inspection. Please review his comments and attached documents that resulted from their April 16, 2009 inspection:

1. RTL Lab Results

2. RTL Photos

I've also attached a detailed description of the inspection/methods RTL performed on the same date. If you have any questions please give me a call.

Regards,

Shane Langlois

From: Clint Ambrose [mailto:Clint.Ambrose@inac-ainc.gc.ca]

Sent: Friday, May 01, 2009 4:42 PM

To: Shane Langlois

Cc: Nahum Lee

Subject: Water Sample Results and Photos - South of the Pilot Islands - Spill File #06-093

Good afternoon Shane,

Thanks again for meeting Nahum and myself at the equipment breakthrough site south of the Pilot Islands on Great Slave Lake.

As observed from all the holes drilled through the ice, no visible sheen or odor was detected and the water appeared to be clean and free of hydrocarbons.

Attached are the photos of the sample locations and the lab results.

If you have any questions or concerns, please do not hesitate to contact Nahum Lee at 669-2757 or myself at the numbers below.

Have a good day

Clint Ambrose

Resource Management Officer III

South Mackenzie District

Indian and Northern Affairs Canada

TEL: (867) 669-2794

CELL: (867) 446-0769

FAX: (867) 669-2720

clint.ambrose@inac.gc.ca <mailto:clint.ambrose@inac.gc.ca>

#16 Yellowknife Airport (Mailing)

140 Bristol Ave. (Street)

Yellowknife, NT

X1A 3T2

This message is intended only for the use of the addressee and may contain information that is privileged and confidential. If you are not the intended recipient you are hereby notified that any dissemination is strictly prohibited. If you have received this communication in error, please notify the sender immediately. Thank you.

RTL Robinson Enterprises Ltd.
Pilot Islands Break-thru Inspection Report
Prepared by S. Langlois, shane.langlois@rtl.ca
RTL Incident # RY-06-81

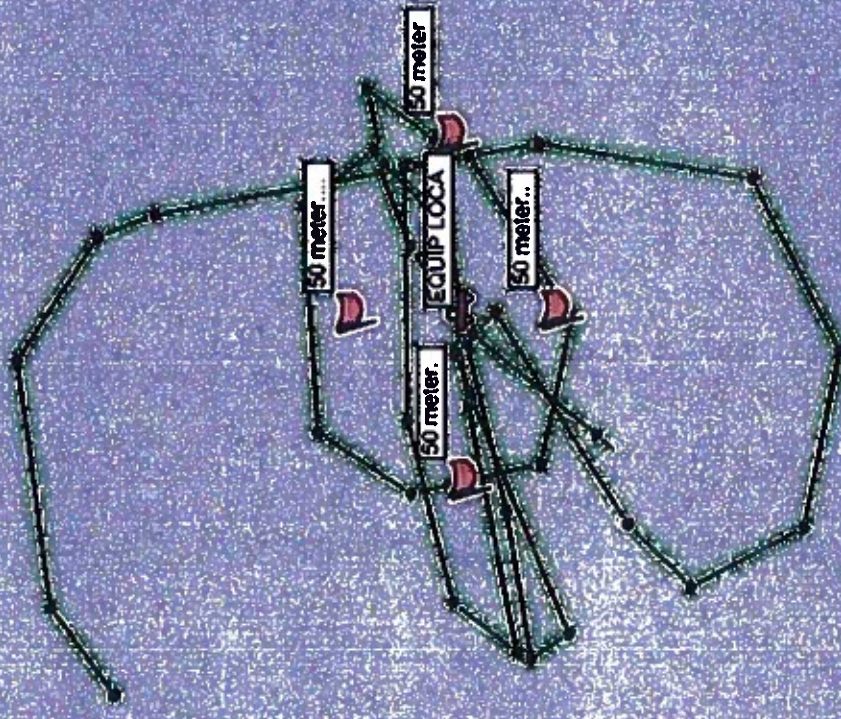
Inspection Summary:

July 12, 2009

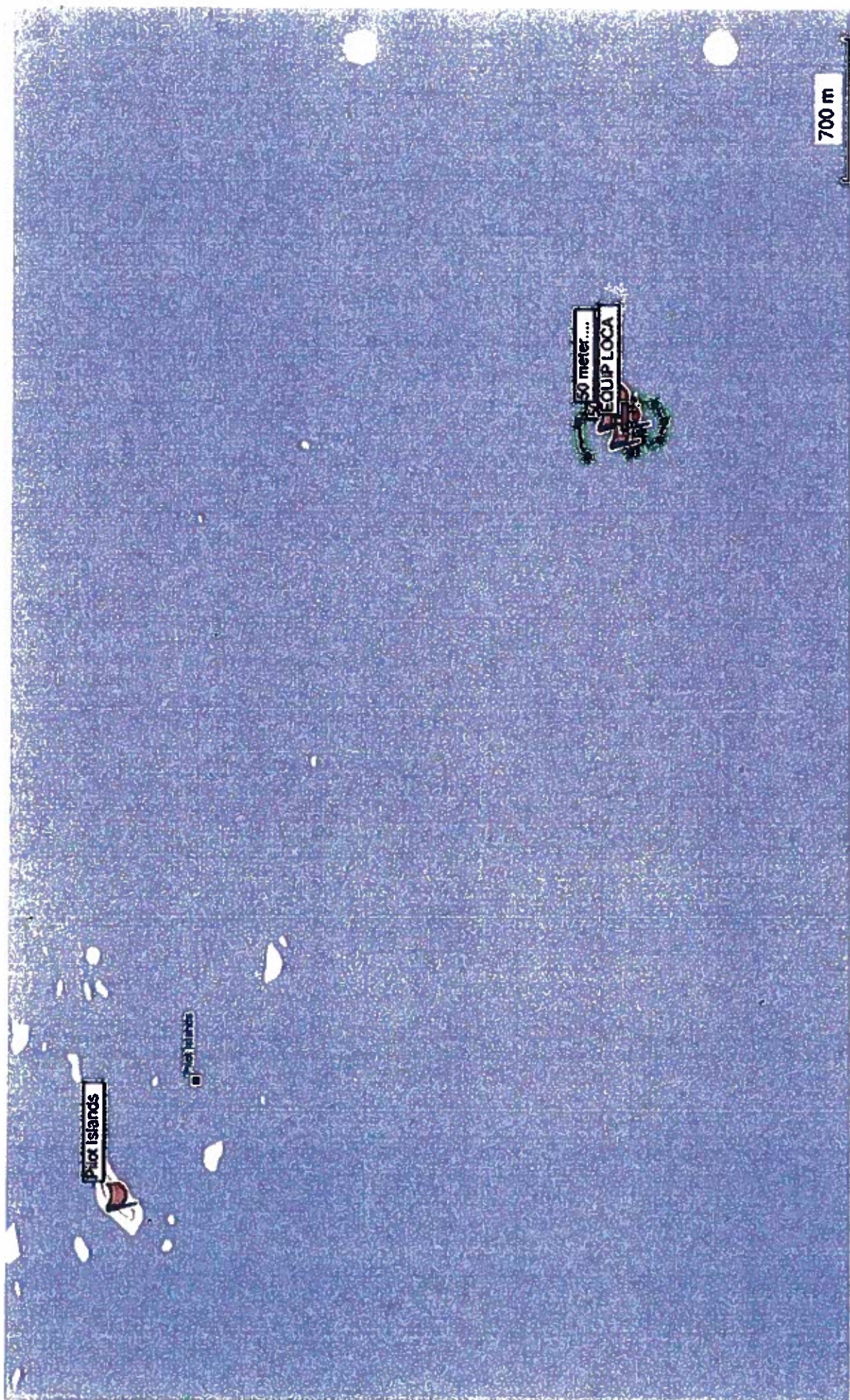
Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands, 14+ km NW of Drybones Bay)

On July 12, 2009 I traveled to the "break thru" location at the Pilot Islands approximately 14 Km's NW of Drybones Bay to inspect for hydrocarbons. Winds were approximately 10 km per hour from the North. I travelled back and forth by boat over the incident location within a 50 meter radius of the equipment and directly above the equipment, NO hydrocarbons were evident, there was NO sheen on the water whatsoever, I touched the water in several areas. No smell was evident and NO oily residue was found. All water was clear and cold.

See attached...



Ordnance Survey



700 m

RTL Robinson Enterprises Ltd.
Pilot Islands Break-thru Inspection Report
Prepared by S. Langlois, shane.langlois@rtl.ca
RTL Incident # RY-06-81

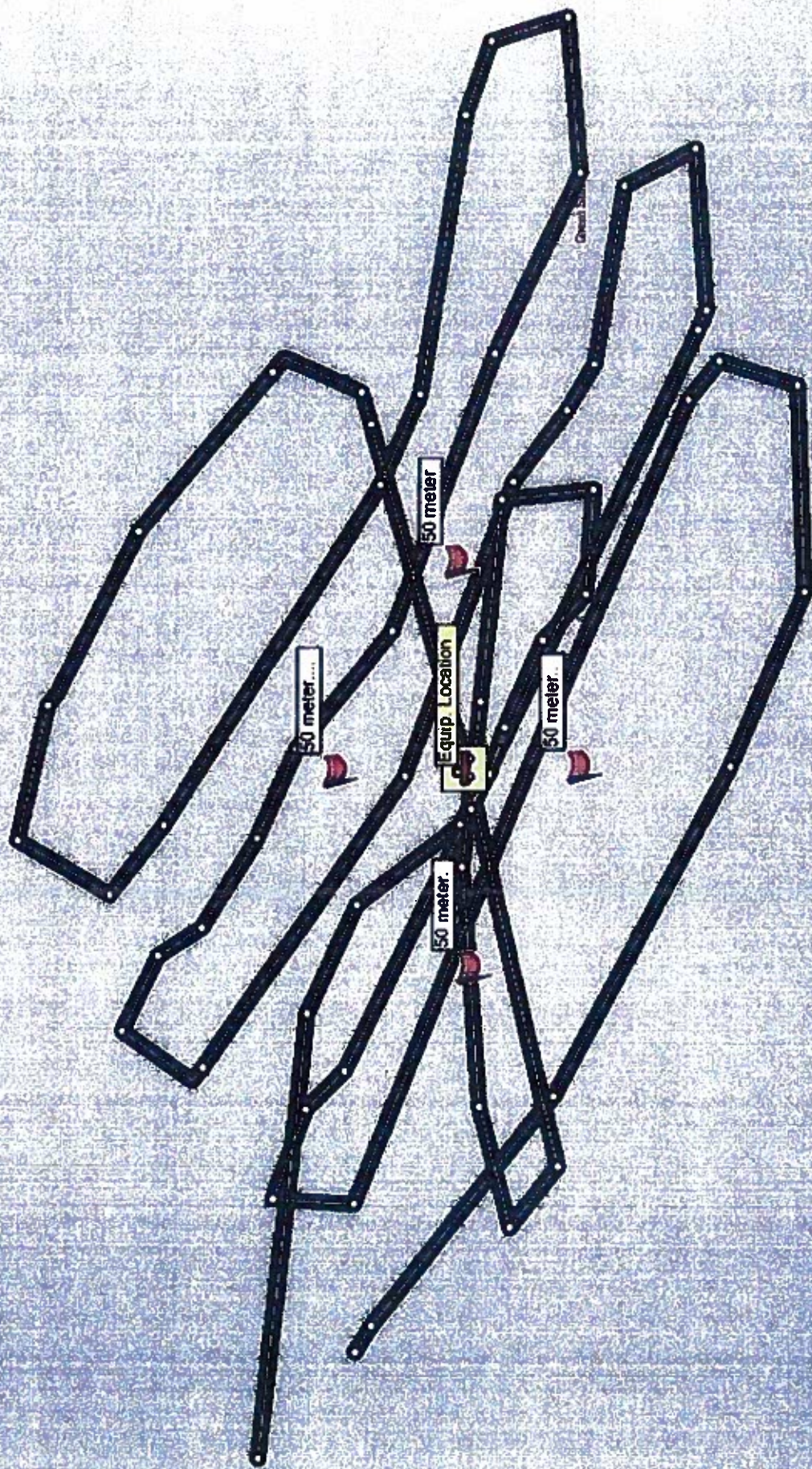
Inspection Summary:

August 2, 2009

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km SE of Pilot Islands, 14+ km NW of Drybones Bay)

On August 2, 2009 I traveled to the "break thru" location at the Pilot Islands approximately 14 Km's NW of Drybones Bay to inspect for hydrocarbons. Winds were stronger than most of our inspections at approximately 15-20 km's per hour from the North-east. I travelled back and forth by boat over the incident location within a 100 meter radius of the equipment and directly above the equipment, NO hydrocarbons were evident, there was NO sheen on the water whatsoever, I touched the water in several areas. No smell was evident and NO oily residue was found. All water was clear and cold.

See attached...



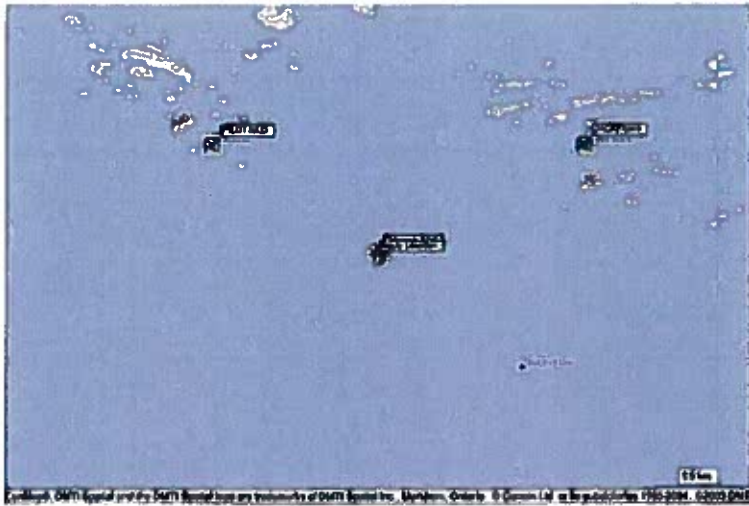
70 m

Inspection Summary:

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km's SE of Pilot Islands, 14+ km's NW of Drybones Bay)

January 26, 2010 Inspection Location





January 26, 2010 Inspection, Track Coordinate List

**Pilot Islands Break Through
Inspection**

January 26, 2010 Inspection

Track

Coordinates

Datum: NAD 83

Waypoint	Date	Location	Elev.
	26-JAN-10	N62.19934	145
26ICE 6SNW	1:42:08PM	W114.07302	m
	26-JAN-10	N62.19934	146
28++	1:39:53PM	W114.07320	m
	26-JAN-10	N62.19913	148
29+++	1:38:33PM	W114.07313	m
	26-JAN-10	N62.19944	150
30+	1:40:22PM	W114.07318	m
	26-JAN-10	N62.19945	149
30+++	1:40:45PM	W114.07298	m
	26-JAN-10	N62.19948	148
30++++	1:41:20PM	W114.07275	m
		N62.19937	
Equip Location	Great Slave Lake	W114.07304	

January 26, 2010 Inspection, Test Hole Pictures









**RTL Robinson Enterprises Ltd.
Pilot Islands Break-through Inspection Report
Prepared by S. Langlois, shane.langlois@rtl.ca
RTL Incident # RY-06-81**

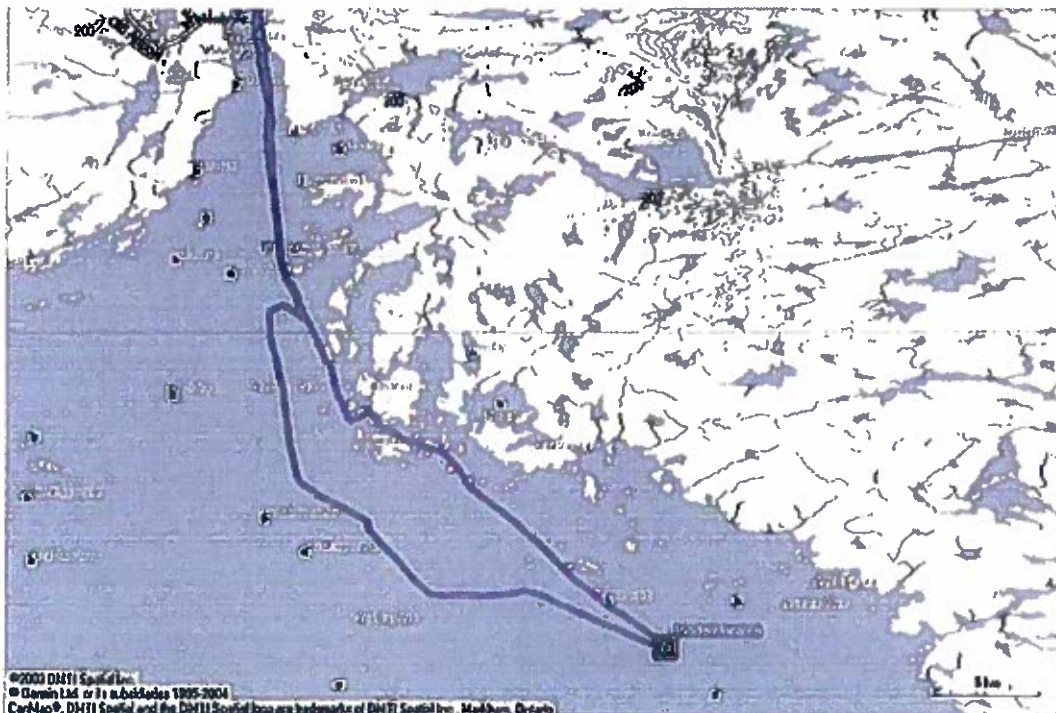
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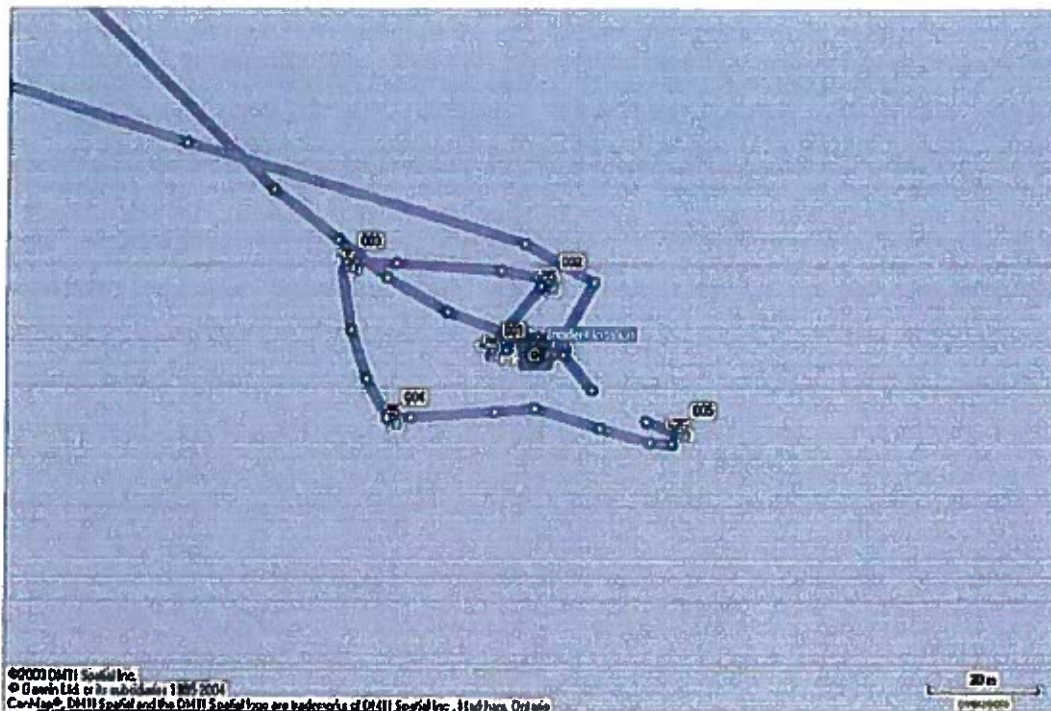
May 5, 2011

Location: Great Slave Lake, Grid: UTM, Datum: NAD 83, 11 V 652266 6899832
(approximately 3.5 km's SE of Pilot Islands, 14+ km's NW of Drybones Bay)

On May 5, 2011 RTL traveled to the "break through" location 3.5 Km's SE of the Pilot Islands to inspect for hydrocarbons. We drilled four test holes through the ice at approximately a 25 m radius around the equipment and one more directly above. All of the ice and water samples inspected showed no evidence of Hydrocarbons in the water and no smell. All water was clear and cold. The snow and ice was clean and pure with no residue. Water Samples were taken and examined at the Taiga Water Lab for Hydrocarbons and other pollutants...NONE were found. Please see attached report.

May 5, 2011 Inspection Location





May 5, 2011 Inspection, Coordinate List

May 5, 2011 Site Inspection Coordinate List

Waypoint	Details	Co'ords	Elev.	Comments
1	05-MAY-11 2:50:24PM	N62.19924 W114.07174	150 m	5+ ft Ice, Clear, Clean & Cold
2	05-MAY-11 2:51:21PM	N62.19935 W114.07159	152 m	5+ ft Ice, Clear, Clean & Cold
3	05-MAY-11 2:52:11PM	N62.19939 W114.07210	152 m	5+ ft Ice, Clear, Clean & Cold
4	05-MAY-11 2:52:59PM	N62.19913 W114.07199	152 m	5+ ft Ice, Clear, Clean & Cold
5	05-MAY-11 2:53:56PM	N62.19911 W114.07127	158 m	5+ ft Ice, Clear, Clean & Cold
Incident location	GREAT SLAVE LAKE	N62.19924 W114.07163		5+ ft Ice, Clear, Clean & Cold

May 5, 2011 Inspection, Test Hole Pictures





2011/05/05

RTL
S. LAINGLOIS
GSL 1

GSL
1510 MAY 5/11

CLIENT RTL
SAMPLER S. LAINGLOIS
SAMPLE DESCRIPTION GSL 1

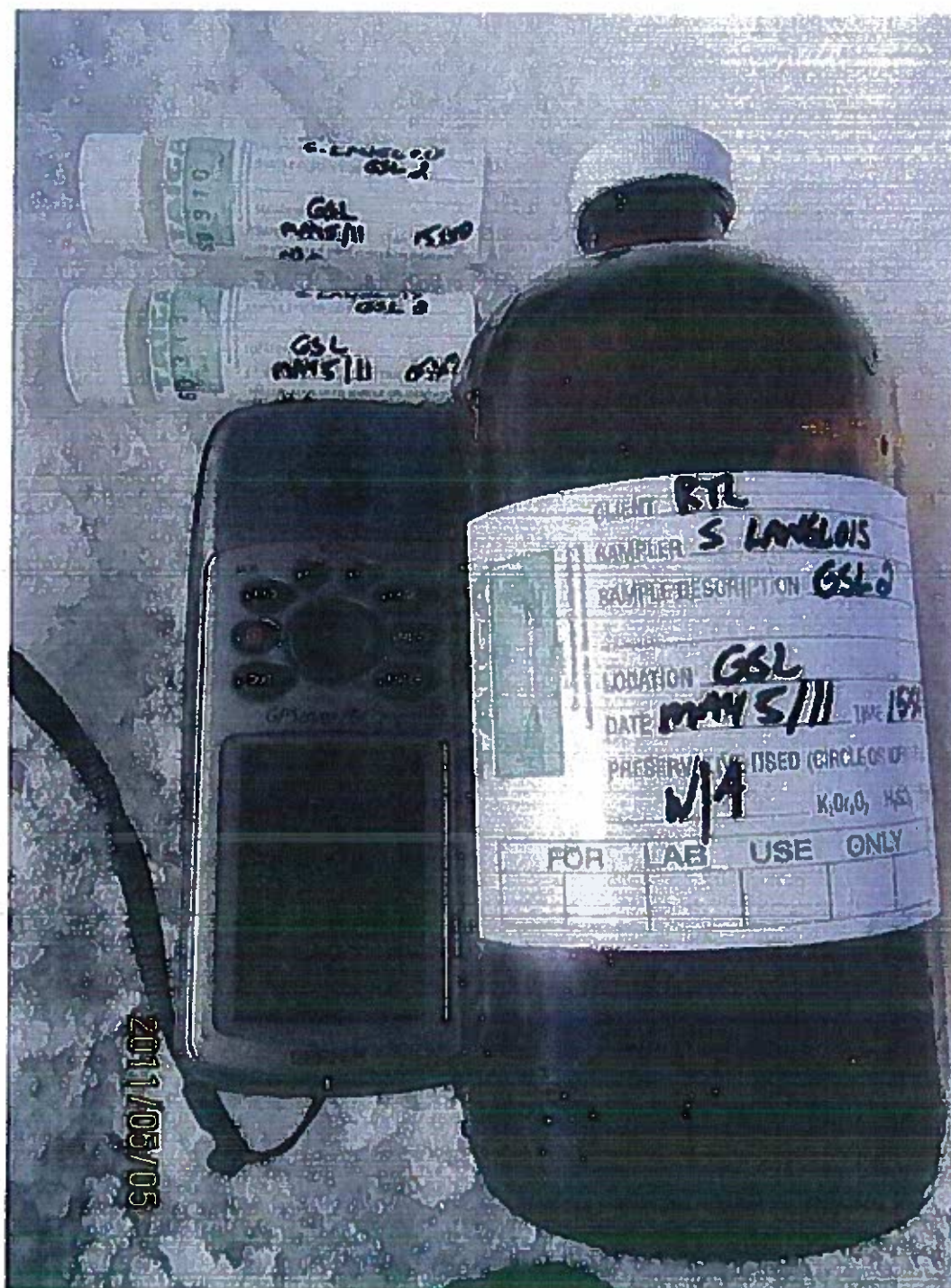
LOCATION GSL
DATE MAY 5/11 TIME 15:12

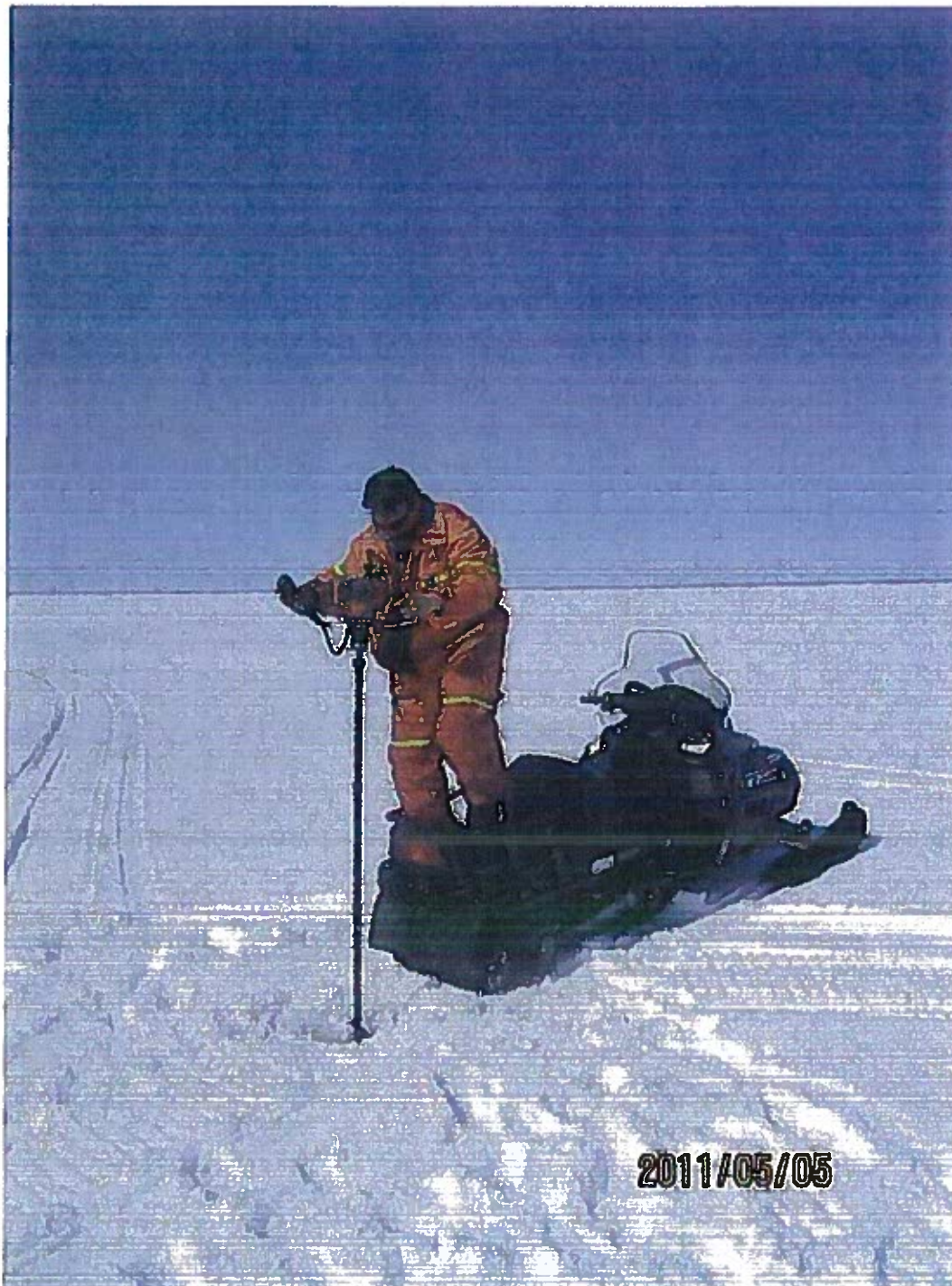
PRESERVATION USED (CIRCLE OR IDENTIFY)
N/A

FOR LAB USE ONLY

RTL
S. LAINGLOIS
GSL 1

GSL
1510 MAY 5/11





Taiga Environmental Laboratory, Certificate of Analysis



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
110183

- FINAL REPORT -

Prepared For: RTL Robinson Enterprises Ltd.

Address: 350 Old Airport Road
P.O. Box 1807
Yellowknife, NT
X1A 2R2

Attn: Shane Langlois

Facsimile: (867) 920-2661

Final report has been reviewed and approved by:



Judy Mah
Client Service Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

Report Date: Tuesday, May 24, 2011
Print Date: Tuesday, May 24, 2011

Page 1 of 4



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No:
110183

- CERTIFICATE OF ANALYSIS -

Client Sample ID: GSL1

Taiga Sample ID: 001

Client Project:

Sample Type: Freshwater

Received Date: 06-May-11

Sampling Date: 05-May-11

Sampling Time: 15:10

Location: GSL

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
Organics						
Benzene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	
Ethylbenzene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	
F2: C10-C16	< 0.2	0.2	mg/L	24-May-11	EPA8015B	
F3: C16-C34	< 0.2	0.2	mg/L	24-May-11	EPA8015B	
F4: C34-C50	< 0.2	0.2	mg/L	24-May-11	EPA8015B	
Hydrocarbons, Total Purgeable	< 0.05	0.05	mg/L	24-May-11	EPA8015	
m/p-xylene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	
o-xylene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	
Toluene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	

ReportDate: Tuesday, May 24, 2011

Print Date: Tuesday, May 24, 2011

Page 2 of 4



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

**Taiga Batch No.:
110183**

- CERTIFICATE OF ANALYSIS -

Client Sample ID: GSL2

Taiga Sample ID: 002

Client Project:

Sample Type: Freshwater

Received Date: 06-May-11

Sampling Date: 05-May-11

Sampling Time: 15:10

Location: GSL

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
Organics						
Benzene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	
Ethylbenzene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	
F2: C10-C16	< 0.2	0.2	mg/L	24-May-11	EPA8015B	
F3: C16-C34	< 0.2	0.2	mg/L	24-May-11	EPA8015B	
F4: C34-C50	< 0.2	0.2	mg/L	24-May-11	EPA8015B	
Hydrocarbons, Total Purgeable	< 0.05	0.05	mg/L	24-May-11	EPA8015	
m/p-xylene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	
o-xylene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	
Toluene	< 0.005	0.005	mg/L	24-May-11	EPA8260B	

Report Date: Tuesday, May 24, 2011

Print Date: Tuesday, May 24, 2011

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No:
110183

- CERTIFICATE OF ANALYSIS -

Client Sample ID: GSL2

Taiga Sample ID: 002

*** Taiga analytical methods are based on the following standard analytical methods**
SM - Standard Methods for the Examination of Water and Wastewater
EPA - United States Environmental Protection Agency

ReportDate: Tuesday, May 24, 2011
Print Date: Tuesday, May 24, 2011

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