



**Indian and Northern  
Affairs Canada**

[www.inac.gc.ca](http://www.inac.gc.ca)

North Mackenzie District  
P.O. Box 2100  
Inuvik, NT X0E 0T0

**Affaires Indiennes  
et du Nord Canada**

[www.ainc.gc.ca](http://www.ainc.gc.ca)

Telephone: 867-777-8900  
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March 28, 2011

Northwest Territories Water Board  
P.O. Box 2531  
Inuvik, NT X0E 0T0

**Attn: Mike Harlow, Executive Director**

**RE: Industrial Water Use N7L1-1831  
CLASS B - INDUSTRIAL  
Mackenzie River - Arvoknar Channel**

Dear Mr. Harlow,

Please find the enclosed Inspection Report for your review and/or records.

An electronic copy (un-editable Adobe pdf.) has also been provided by e-mail.

If you have any questions or concerns regarding the enclosed, and/or if additional information is required please contact me at (867) 777-8909.

Sincerely,

Jan Davies  
Water Resource Officer

Cc: Conrad Baetz, District Manager, North Mackenzie District, Inuvik, NT

Enclosure: Industrial Water Use Inspection Report and Cover Letter (4 pages)



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March 28, 2011

Shell Canada Ltd.  
400 - 4th Avenue S.W.  
P.O. Box 100, Station M  
Calgary, AB T2P 2H5

**Attn: Randall Warren**

**RE: Industrial Water Use N7L1-1831  
CLASS B - INDUSTRIAL  
Mackenzie River - Arvoknar Channel**

Dear Mr. Warren,

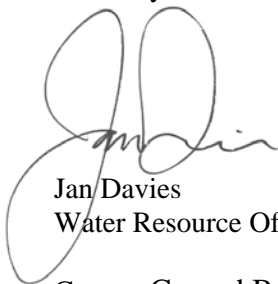
An inspection of the above noted operation was conducted on March 23, 2011 by Water Resource Officer Jan Davies and Resource Management Officer Donald Arey. Enclosed is a copy of the Industrial Water Use Inspection Report.

The efforts by Shell Canada Ltd. to ensure the project is carried out in an environmentally responsible way is recognized. There were no violations during this inspection. Please review and address the concerns as indicated in the enclosed Inspection Report.

This report will be sent to the Northwest Territories Water Board for their review and/or public records.

If you have any questions/concerns regarding the enclosed and/or if additional information is required, please do not hesitate to contact me at (867) 777-8909.

Sincerely,



Jan Davies  
Water Resource Officer

Cc: Conrad Baetz, District Manager, North Mackenzie District, Inuvik, NT

Enclosure: Industrial Water Use Inspection Report (3 pages)



## INDUSTRIAL WATER USE INSPECTION REPORT

<b>LICENCE #:</b>	N7L1-1831	<b>EXPIRY DATE:</b>	September 30, 2013
<b>LICENCEE:</b>	Shell Canada Ltd.	<b>PREVIOUS INSPECTION:</b>	March 17, 2011
<b>COMPANY REP:</b>	Randall Warren	<b>INSPECTION DATE:</b>	March 23, 2011

### WATER SUPPLY

Source:	Mackenzie River - Arvoknar Channel	Quantity Used:	< 295 m3
Owner/Operator:	Shell Canada Ltd.	Meter Reading:	N/A

**Indicate:**      **A - Acceptable**                      **U - Unacceptable**                      **N/A - Not Applicable**                      **N/I - Not Inspected**

Intake Facilities	N/A	Storage Structures	N/I	Treatment Systems	N/A	Recycling	N/A
Flow Meas. Device	A	Conveyance Lines	N/A	Pumping Stations	A	Chem. Storage	N/A
						Modifications	N/A

### **Water Supply Comments:**

Notes:

- Potable water being shipped from the Town of Inuvik.

### WASTE DISPOSAL

Well Waste:	Off-Site Removal	A	Drilling Sump	N/A	Downhole	N/A	Land spread	N/A
Solid Waste:	Open Dump	N/A	Landfill	A	Burn & Bury	N/A	Under ground	N/A
	Owner / Operator	Shell Canada Ltd.	Sludge Disposal	N/A	Other	N/A		
Tailings:	Tailings Pond	N/A	Natural Lake	N/A	Under ground	N/A		
Sewage:	Sewage Treat. System	A	Camp Sump	N/A	Natural Water Body	N/A	Wetland Treatment	N/A
	Continuous Discharge	N/A	Inter. Discharge	N/A	Seasonal Discharge	N/A	Trench	N/A

**Indicate:**      **A - Acceptable**                      **U - Unacceptable**                      **N/A - Not Applicable**                      **N/I - Not Inspected**

Discharge Quality	N/A	Construction	N/A	Disch. Meas. Dev.	N/A	Freeboard	N/A
Decant Structures	N/A	O&M Plan	N/A	Dams, Dykes	N/A	Seepages	N/A
Dyke Inspections	N/A	A&R Plan	N/A	Erosion	N/A	Spills	A
Conveyance Lines	N/A	Pond Treatment	N/A	Runoff Diversion	N/A	Sump Treatment	N/A
Sump Liners	N/A			SNP Samples Collected	N/A		
Periods of Discharge	N/A			Effluent Discharge Rate	N/A		

### **Waste Disposal Comments:**

Concerns:

1. It was apparent from the excavation of the sump that it and the surrounding work site is getting soil tracked in and around the ice pad established on the well lease. It was noted to project staff that this tracked material needs to be graded at the end of the project and shipped out to the containment cell (see Figure 1).

Date:	March 23, 2011	Licence #:	N7L1-1831	Page No:	1
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## INDUSTRIAL WATER USE INSPECTION REPORT

**Notes:**

- Sewage is being transported to the Town of Inuvik's Sewage Lagoon. To date 2 loads have been shipped - 7500L on March 16, 2011 and 7000L on March 22, 2011.
- Site continues to be clean of spills and drip trays are being used.
- Trucks to haul waste material have had their trailers lined with plastic to prevent accidental spillage (see Figure 2).
- A crew was dispatched to clean up any spilled material from the access road and highway. Roads looked clean.

**GENERAL CONDITIONS**

**Indicate:            A - Acceptable                    U - Unacceptable                    N/A - Not Applicable    N/I - Not Inspected**

Ore & Waste Rock Stockpiles	N/A	Records & Reporting	A	Surv. Net. Prog.	N/A
Geotechnical Inspection	N/A	Posting, Signage	N/A	Contingency Plan	A
Restorations Activities	N/A	New Construction	N/A	Fuel Storage	A
Mine Water Discharge	N/A	Chemical Storage	N/A	Annual Report	N/A

**General Condition Comments:**

**Concerns:**

1. As stated in the previous inspection, surficial soil was blown around the site of the sump excavation and the borrow source at the sand bar. The stripped snow cover had soil mixed with it. Project staff said soil laden snow will be rolled back on to the excavations when the project is complete and also iced down with water. There are piles of snow surrounding soil acting as a windbreak.
2. The sandbar borrow source has had the Iron Wolf grind up the surficial material which was being piled in 3 large piles. Attention will need to continue to ensure that if there's any excess wind or dispersal of material that more windbreaks may be required, soil piles and disturbed soil areas may need to be watered down to maintain control of loose material (see Figure 3).


**Notes:**

- The sump is being dug out by an excavator. This proved more precise and faster as the material is frozen but soft enough. This has cut down on the dust present and windblown material (see Figure 4).
- Excavated contaminated material from the sump and surrounding area was being stockpiled on a synthetic liner next to the sump excavation prior to shipping to the containment cell(see Figure 5).
- Camp sump and flare pit (see Figure 6) have been excavated but are awaiting confirmation from samples taken and sent to the lab.
- Both fuel storage areas (main tanker truck and the camp generator fuel tank) have secondary containment in addition to the bermed synthetic liner present.
- Water Licence was present.
- Iron Wolf is no longer on site.

**NON-COMPLIANCE/VIOLATIONS OF ACT OR LICENCE**

N/A

Inspector's Signature:





## INDUSTRIAL WATER USE INSPECTION REPORT

### Inspection Images:



**Figure 1**

Tracked material on the ice pad from excavation of the sump needs to be graded at the end of the project and shipped to the containment cell.



**Figure 2**

Trucks to haul waste have had their trailers lined with plastic to prevent accidental spillage.



**Figure 3**

The sand bar borrow source has had surficial material ground up by the Iron Wolf and put in large piles to await removal



**Figure 4**

The sump is being dug out by an excavator as the material is frozen but soft enough, so less dust and windblown material.



**Figure 5**

Excavated material from the sump is put on the synthetic liner to await shipping to the containment cell.



**Figure 6**

The flare pit has been excavated and is awaiting lab results.