

Shawnigan Village Waterworks**ANNUAL REPORT***(Drinking Water System Name)*

Reporting Period:	2010
Operating Permit Number:	0353
Drinking Water System Owner:	Lidstech Holdings
Drinking Water System Contact:	
Name:	Rod Lidstone
Phone No:	(250) 743-4091
Email:	info@shawniganwater.com

1 Microbiological testing completed during this reporting period:

- a. bacteriological results attached to this report.
- b. adverse bacteriological results: None detected
 Listed in table below:

Adverse Results:

Date	Total coliform	E. Coli	Reason	Corrective Action
Nil				

2 Chemical results for this reporting period:

None taken for this recording period

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3 Summarize additional testing and sampling carried out in accordance with the requirement of a Water Source approval, Written Order or as per the conditions of your *Operating Permit*.

- no additional testing
 additional listed below: See also attached summary report and downloaded charts

Additional testing:

Description of parameter & reason for sampling	Health parameter or non-health related parameter	Corrective action necessary (Y/N?)	Corrective action taken
Turbidity monitoring as per VIHA Policy 3.3.	1 NTU or less for 95% of the days in the year. Not above 5 NTU on more than 5 days a year	N	

4 Water Quality Complaints:

During the course of the year, the water system:

- did not receive water quality complaints (ie taste, odour, colour, etc)
 received water quality complaints and are listed below:

Water Quality Complaints:

Date	Water quality complaint	Corrective action taken
July 27- Aug 9	Several low Pressure phone calls	These were all during our annual flushing period

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5 Adverse results: Total number of adverse results during this reporting period for insufficient water supply, malfunction of disinfection equipment or elevated turbidity:

- No adverse results
- Adverse results listed below:

Adverse Results:

Incident date	Corrective action	Corrected by
March 8	Some upper customers had no water	Running lake pumps on manual until remedied auto control problem
April 24	Some upper customers had no water	Pumps were inadvertently left turned off after lake pump house checks on previous day.

6 Description of the system:

Sources of raw water:

- Groundwater
- Surface water
- Other (specify): _____

Does the drinking water system have disinfection? Yes No

Disinfection methods (check boxes that apply):

- Chlorination
- Ultraviolet light
- Ozonation
- Other (specify): _____

Does the drinking water system have treatment? Yes No

Treatment type (check boxes that apply):

- Particulate cartridge filters
- Membrane filtration
- Carbon filter
- Sand filtration
- Reverse osmosis
- Other (specify): _____

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7 Major expenses incurred during the period covered by the report:

To purchase or install required equipment: \$93,780
 To repair equipment: \$17,100
 To replace equipment: \$35,000
 To complete annual maintenance of system: *(system flushing, replacement of carbon filters, etc)* \$10,000
 To complete specialist report (specify):
Engineer pumphouse land survey \$ 3,988

8 Further communication with users:

a. Indicate how you notified system users that your annual report is available, and is free of charge:

- hand delivered
- public access/ notice via web
- public access/notice via government office
- public access/notice via newspaper
- public access/notice via bill stuffer
- public access/ notice via other method (specify):

b. Improvements or remedial actions required by the Drinking Water Officer:

- no action required
- Drinking Water Officer inspection report attached to report
- actions required by Drinking Water Officer listed below:

Improvements/Remedial Actions:

Required action	Completion date
Source water Temperature monitor	Sept.. 2010
Turbidity monitoring	Jan. 2010

c. Future water system improvements:

- no improvements planned
- improvements listed below:

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Future Improvements:

Future plans	Planned completion date
Rechlorination system at Jersey reservoirs	May 2011
Chlorine Monitors installed in all reservoirs	May 2011

d. Emergency Response Plan can be accessed by:

- posting on web
- posting at nearest government office
- contacting water system owner
- Other (specify): _____

John Motherwell & Associates Engineering Ltd.

35 CADILLAC AVENUE, VICTORIA B. C. V8Z 1T3

Telephone: Bus. 250 475-3535
Fax. 250 475-3536
Res. 250 477-6701

CONSULTING ENGINEERS

JOHN L. MOTHERWELL
B.A.Sc., P.Eng., C.L.S., B.C.L.S.

S72-264

May 16, 2011

FAX (250) 743-4021

Lidstech Holdings Ltd.
P.O. Box 369
Shawnigan Lake BC V0R 2W0

Dear Rod:

Re: Turbidity and Temperature Readings

I am enclosing copies of the above for the period October 2009 to April 2011, inclusive, and wish to discuss these as follows:

1.0 TURBIDITY

The results for the year 2010, which is the only full year we have to date, are as follows

	Days over 1 NTU	Days over 5 NTU
2010 J.	1	0
F.	0	0
M.	0	0
A.	0	0
M.	0	0
J.	0	0
J.	0	0
A	0	0
S.	0	0
O.	0	0
N.	8	0
D.	0	0
Totals	9	0

According to VIHA Policy 3.3 of November 13, 2007, you would be permitted to operate without filtration if your daily average source water turbidity is:

- 1 NTU or less for 95% of the days in year.
This means that you could not have turbidity over 1 NTU for $0.5 \times 365 = 18$ days.
- Not above 5 NTU on more than 2 days a year.

The only full year we have to date is 2010, when there were totals of:

- 9 days when the turbidity was over 1 NTU (The limit as above is 18 days)
- 0 days when the turbidity was over 5 NTU.

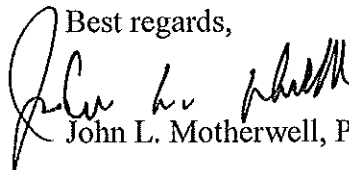
This shows that you conformed to the policy for the year 2010, which appears to be quite favourable.

2.0 TEMPERATURE

Also sent herewith is a chart of the temperature of the raw water for the period September 28, 2010, to May 10, 2011. This shows a steady progression with no sign of changes caused by the lake overturning. The only exception is the spike on February 17, 2011, which was caused by the shutting down of the main pumps. The turbidity data for the previous two days, February 15 and 16, 2011 show turbidity over 1 NTU, but on February 17, the day of the shut down, the turbidity was below 1.0.

The effect of the shutdown may mask evidence of an overturn of the lake on February 15 and 16, 2011, but at the moment I doubt that this will prove damaging when the full year 2011 is analyzed. I think that one year's data is inadequate as a basis for the decisions to build a filtration plant or not, and believe we should have at least three years data.

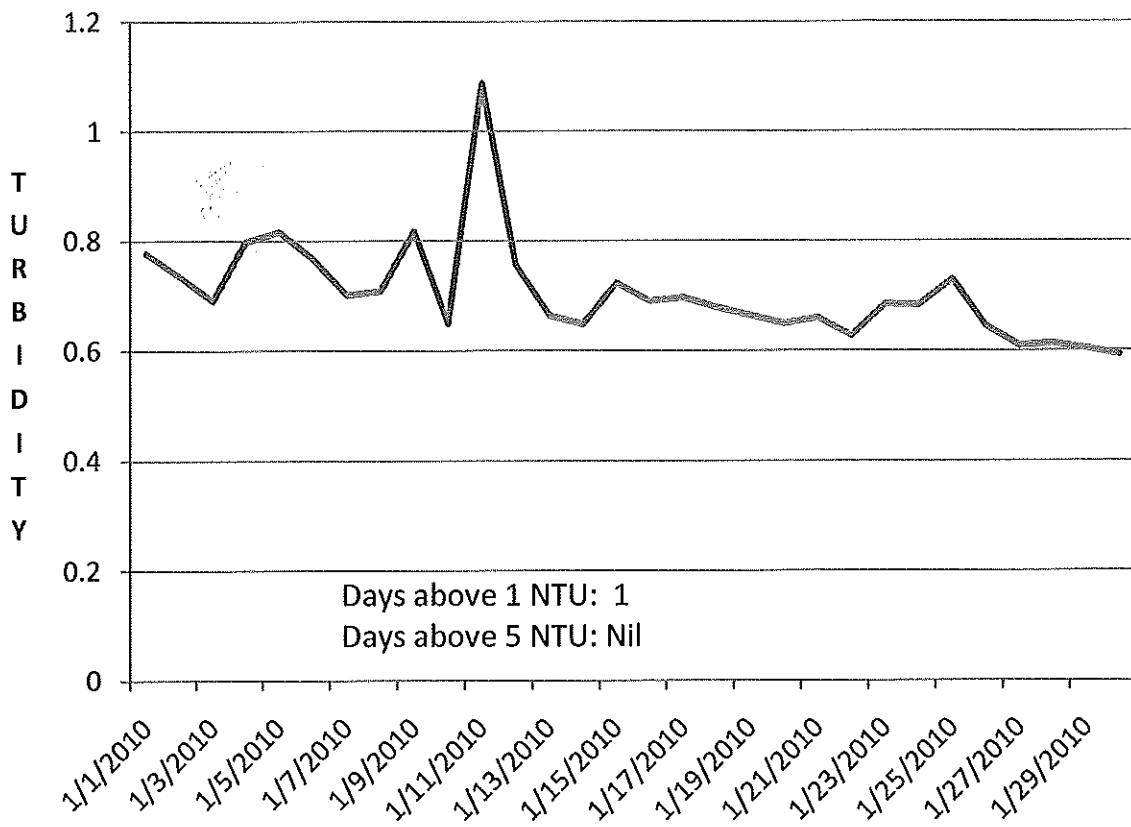
Best regards,



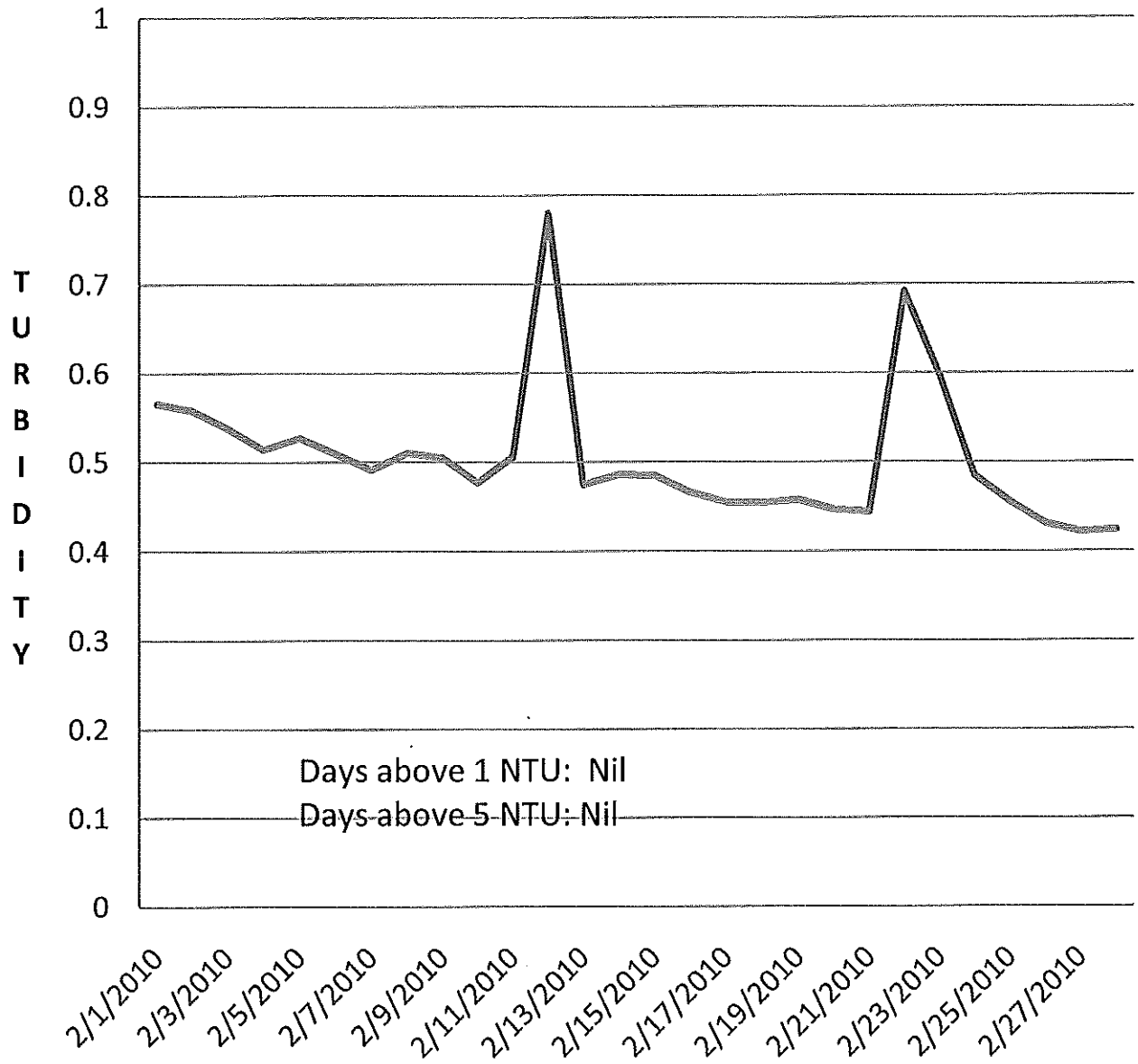
John L. Motherwell, P. Eng.

JLM:ma

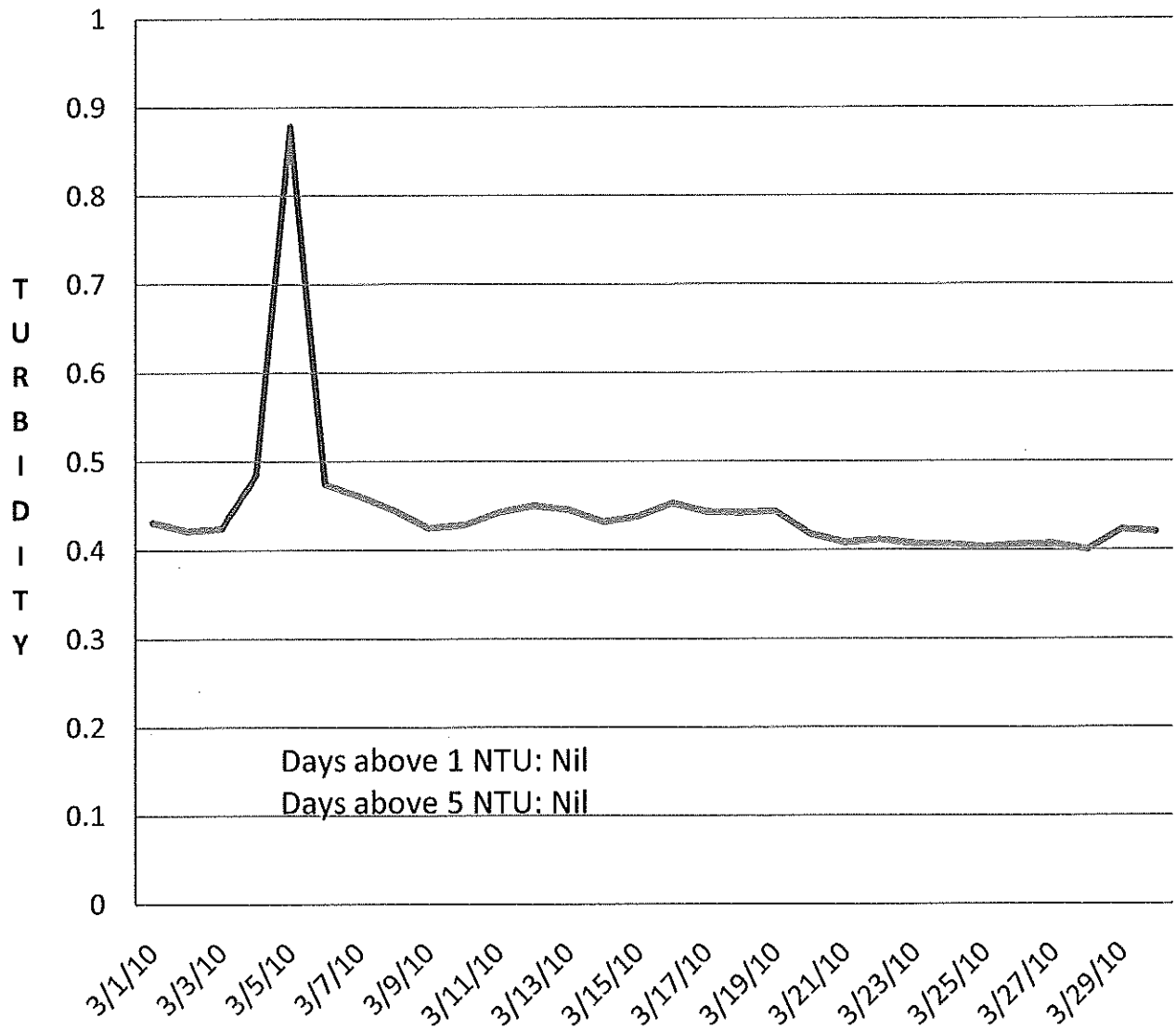
SHAWNIGAN TURBIDITY JAN. 2010



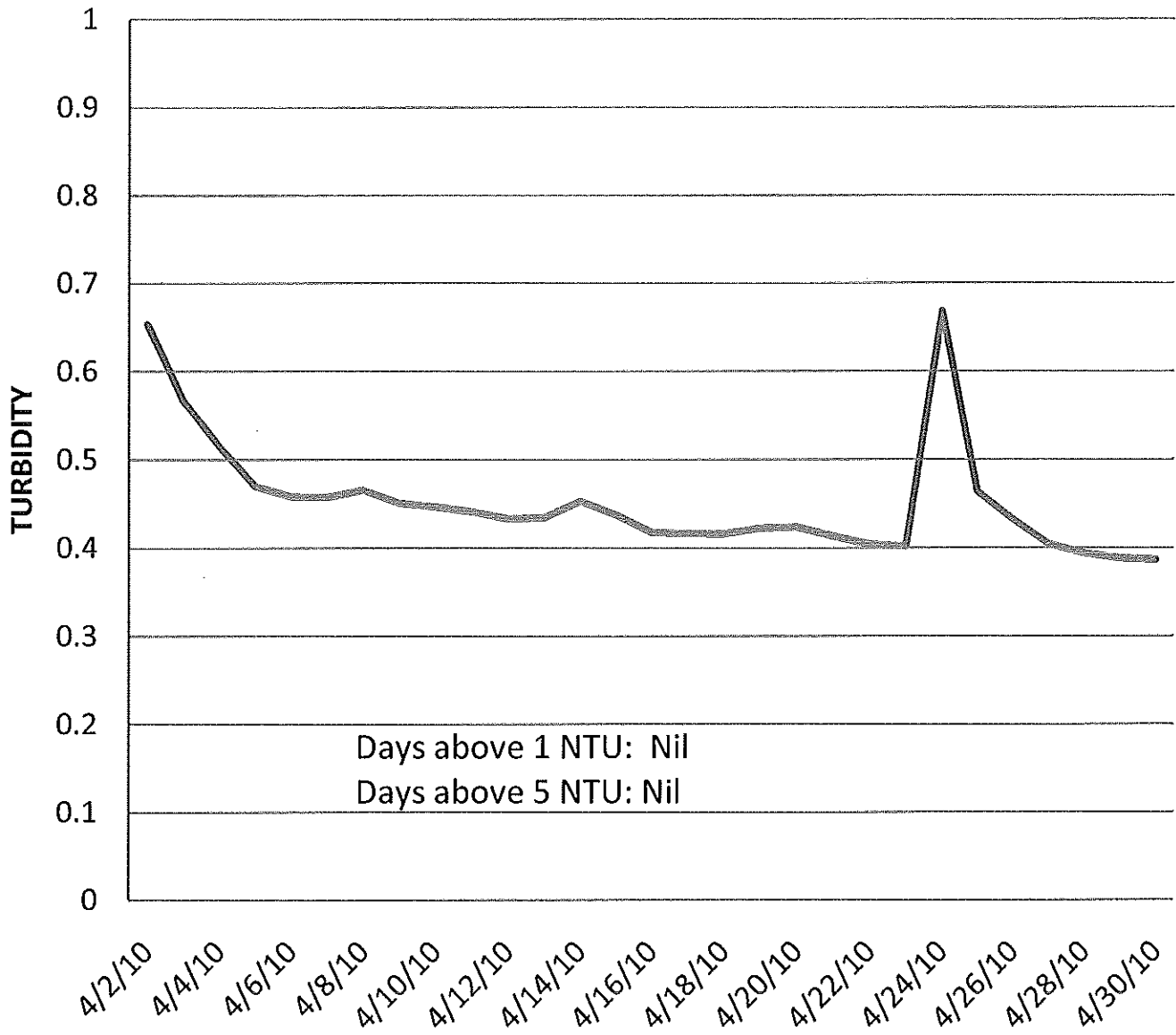
SHAWNIGAN TURBIDITY FEB. 2010



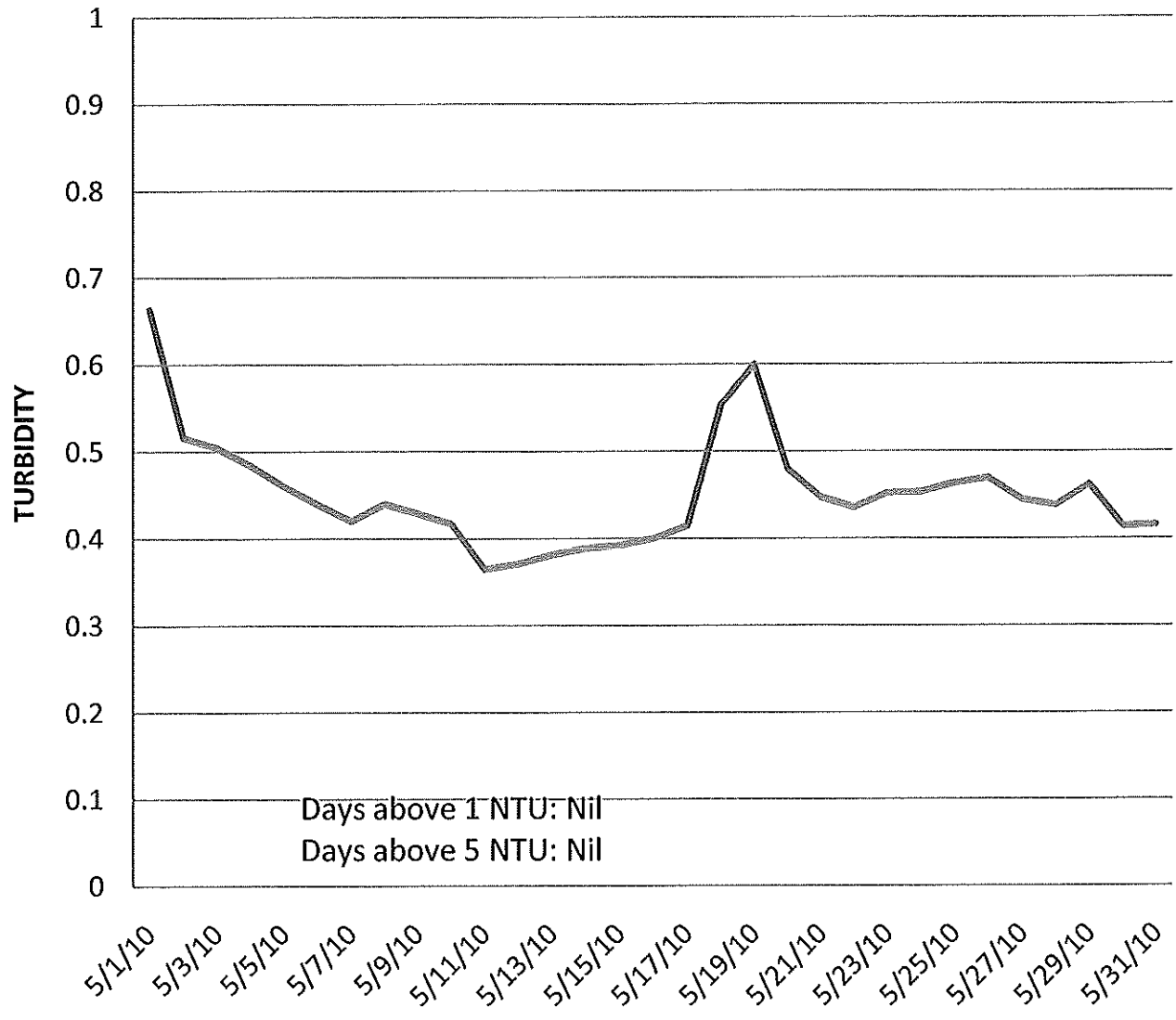
SHAWNIGAN TURBIDITY MAR. 2010



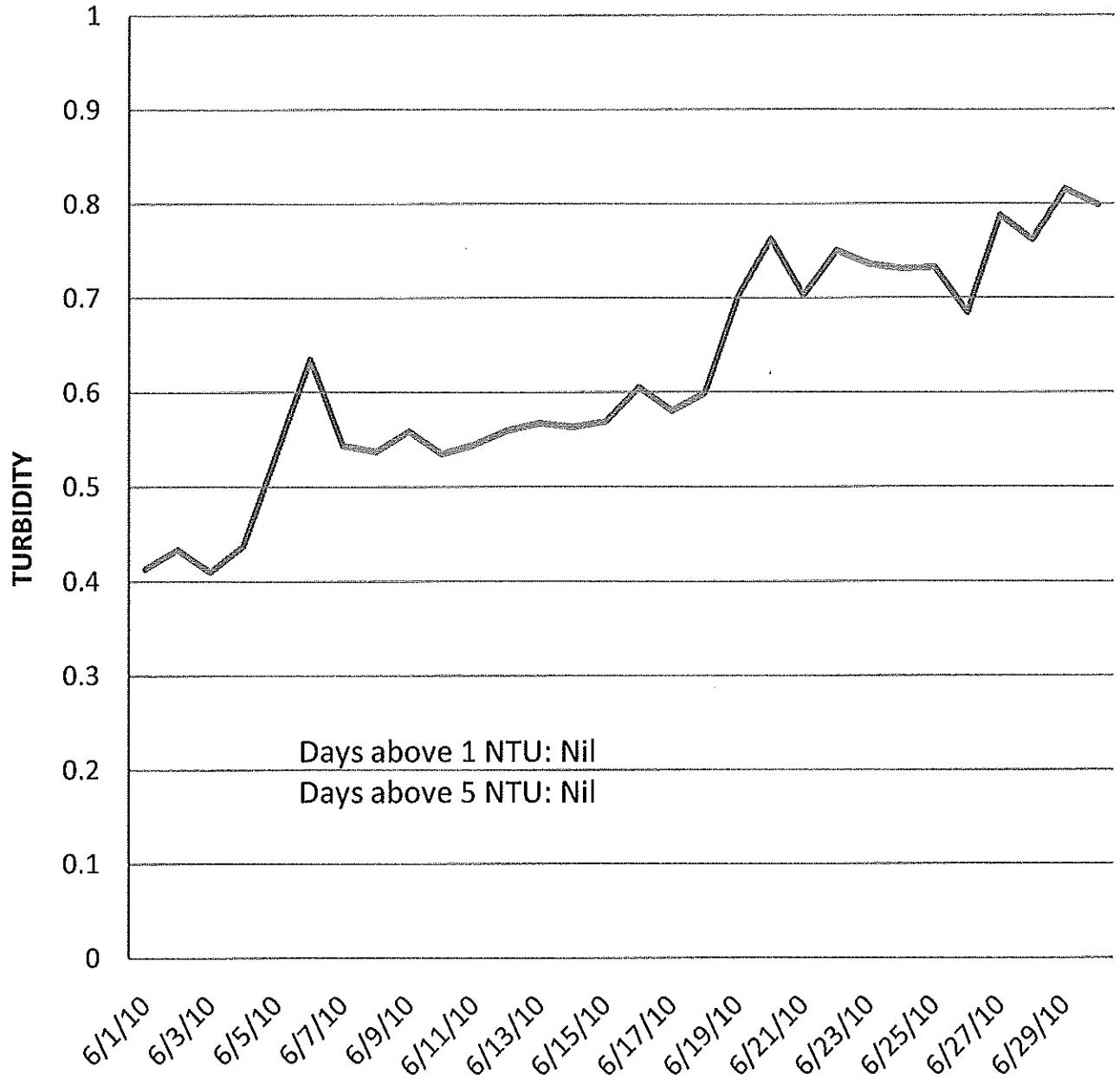
SHAWNIGAN TURBIDITY APR. 2010



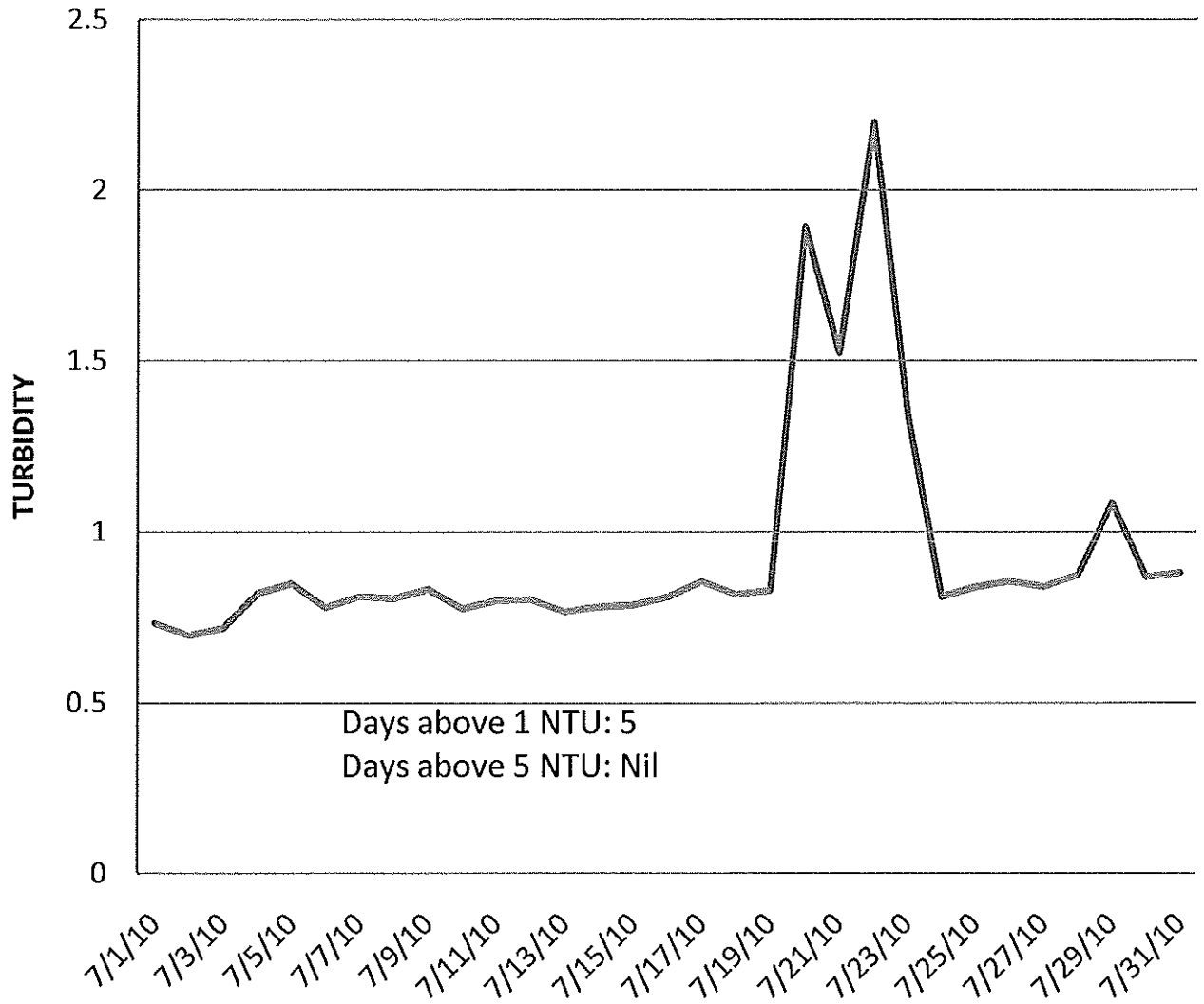
SHAWNIGAN TURBIDITY MAY 2010



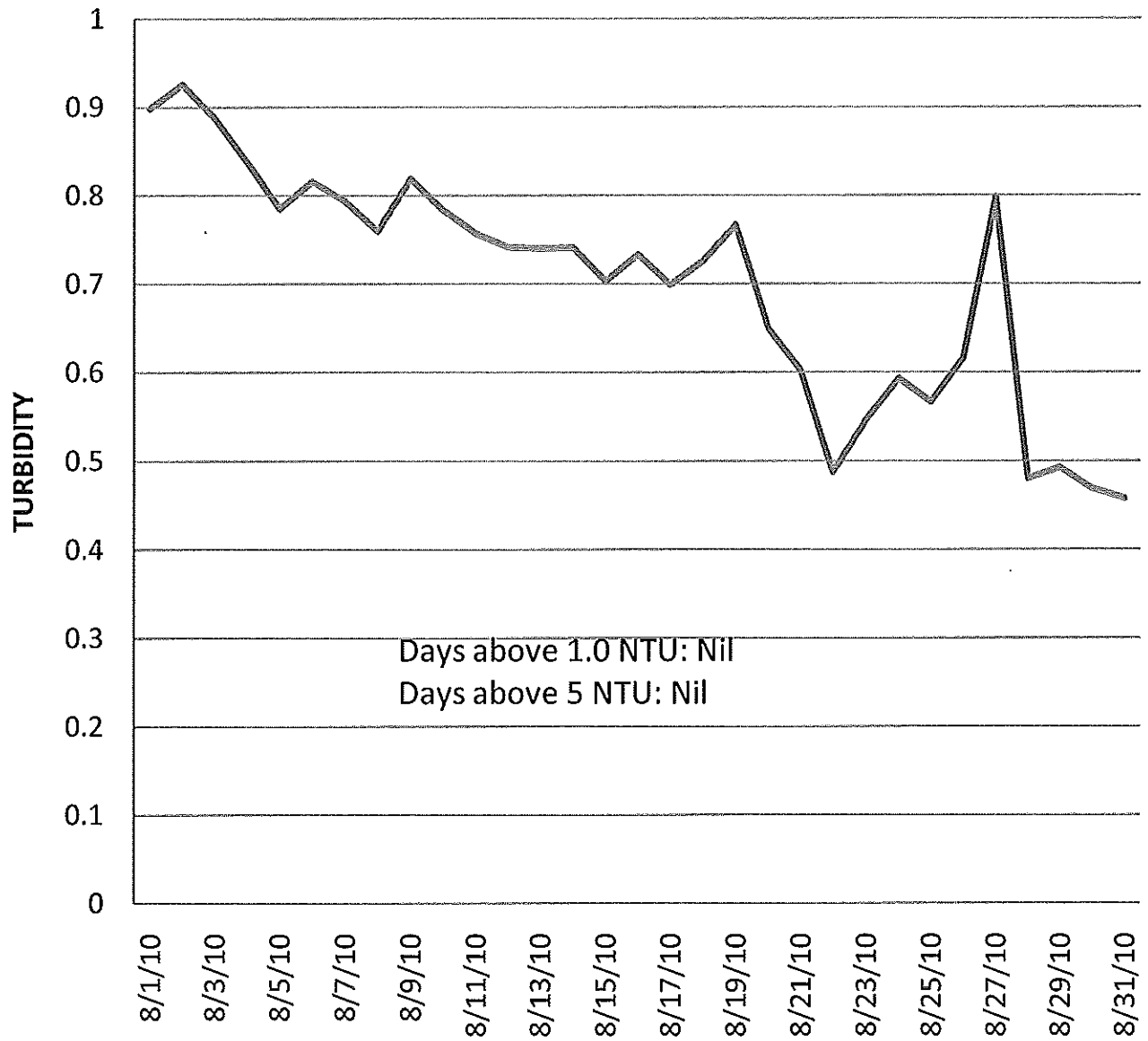
SHAWNIGAN TURBIDITY JUN. 2010



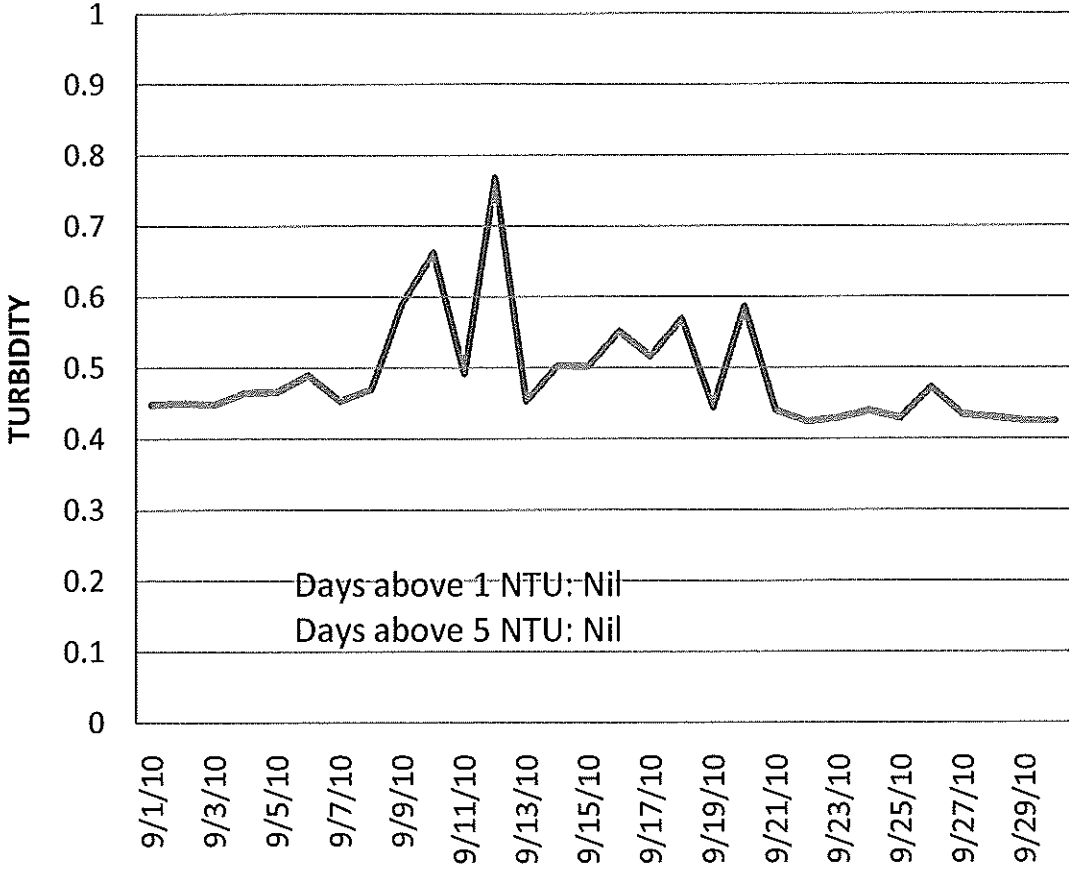
SHAWNIGAN TURBIDITY JUL. 2010



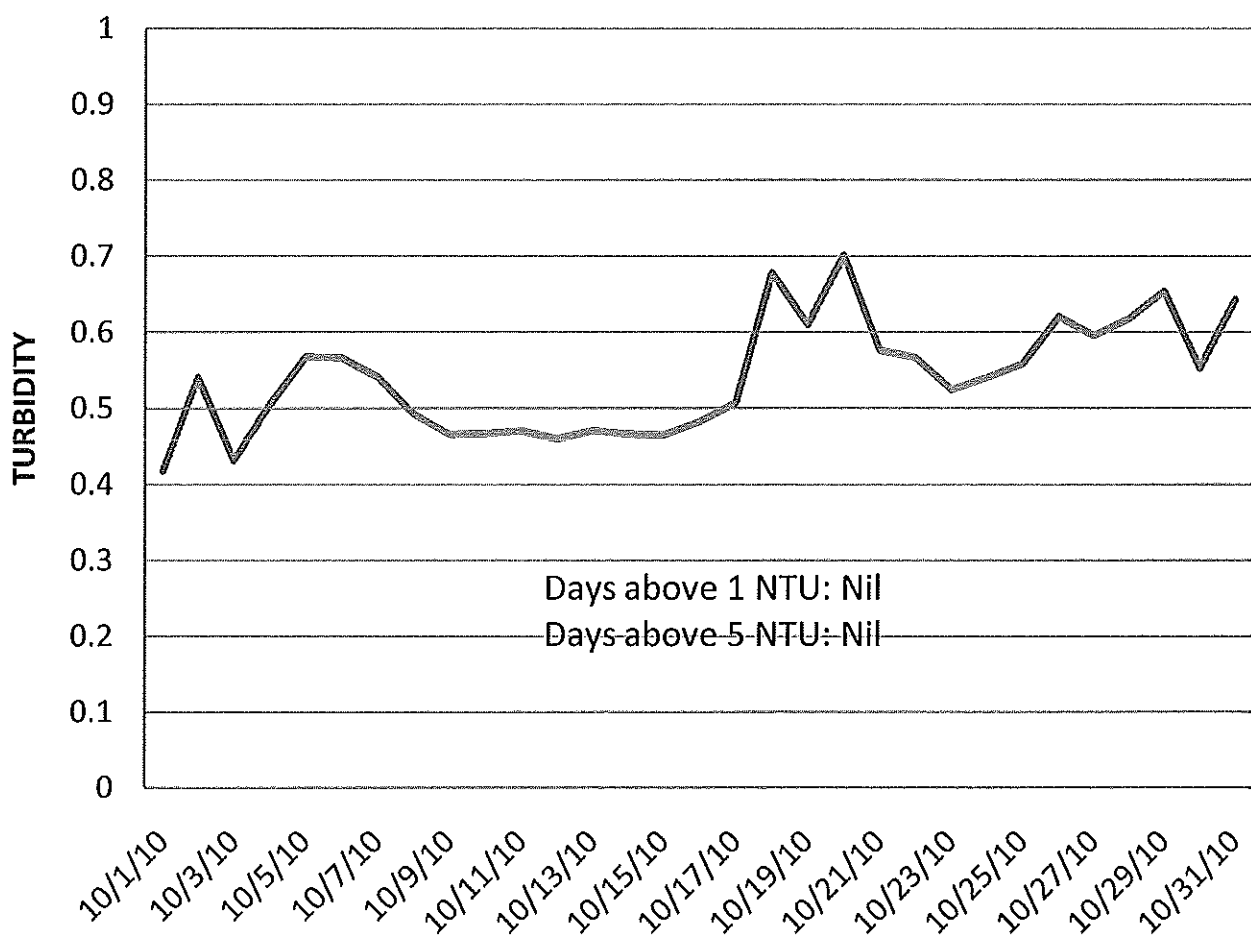
SHAWNIGAN TURBIDITY AUG. 2010



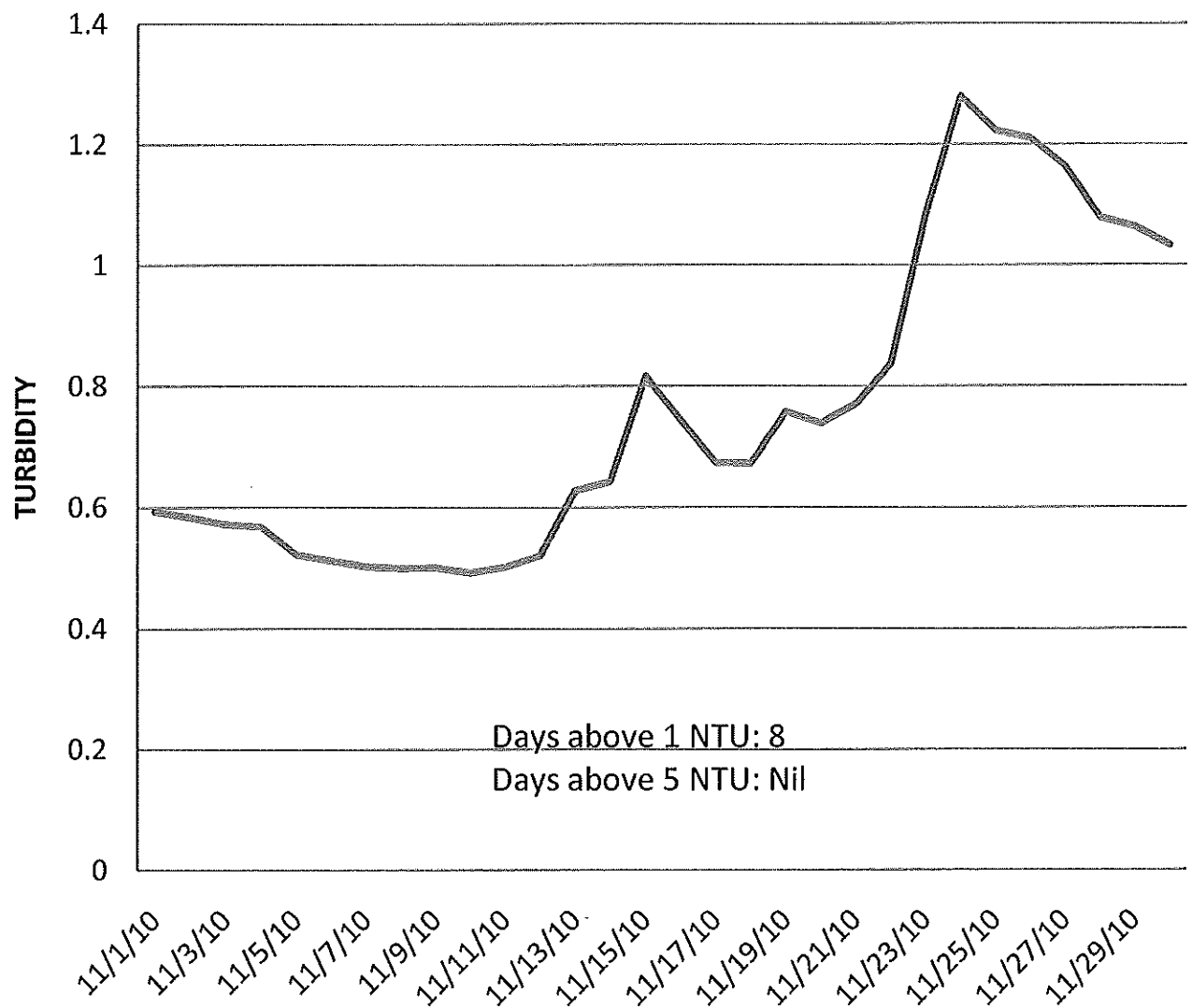
SHAWNIGAN TURBIDITY SEPT. 2010



SHAWNIGAN TURBIDITY OCT. 2010



SHAWNIGAN TURBIDITY NOV. 2010



SHAWNIGAN TURBIDITY DEC. 2010

