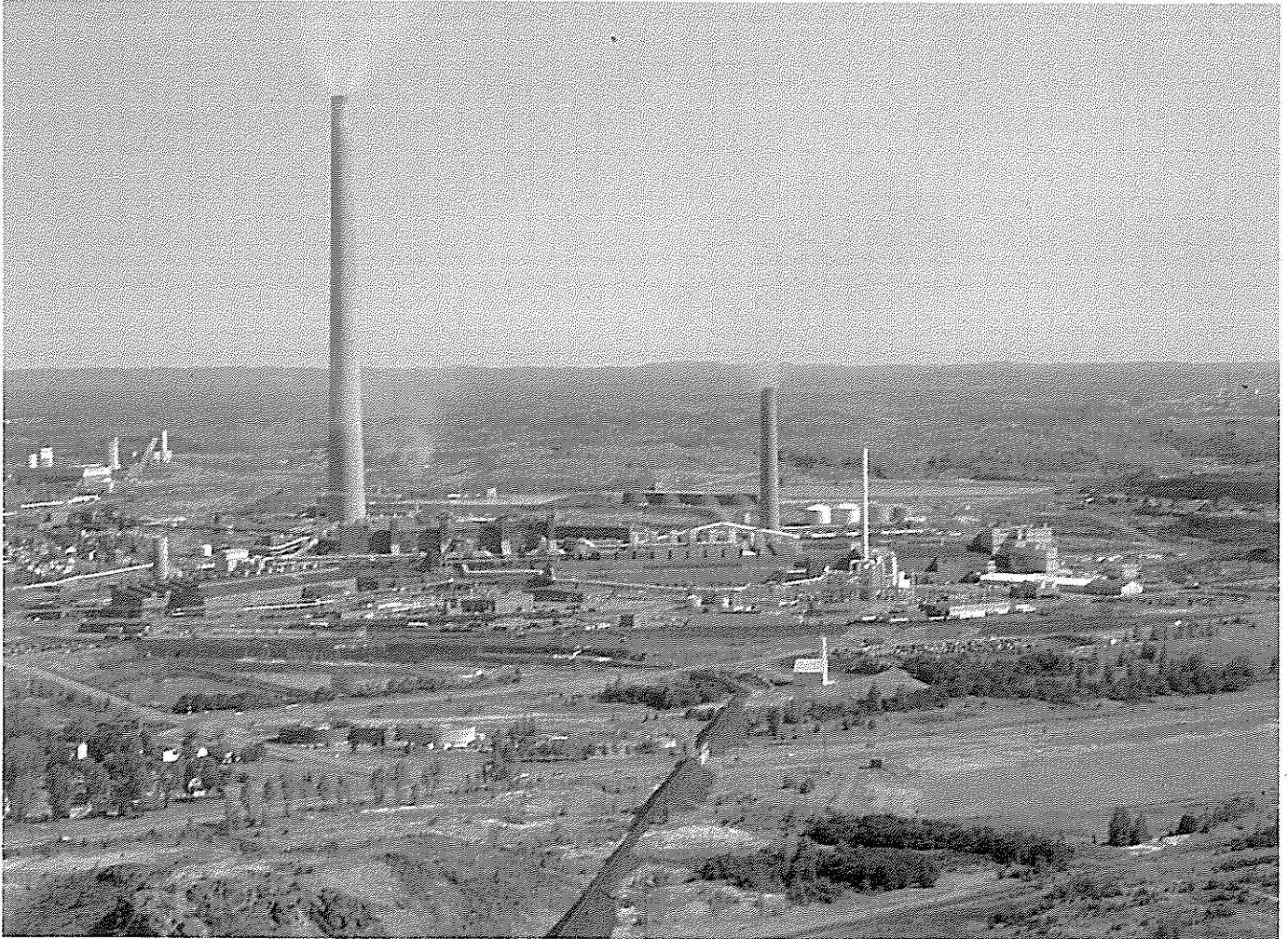




VALE INCO



SUMMARY REPORT

Schedule 22

Vale Inco Limited
Vermilion Water Treatment Plant
Ontario Regulation 170/03
March 31, 2009



VALE INCO

Water Plants
Ontario Operations

March 30, 2009

Mr. Tom Zanetti,

Please find the attached 2008 Summary Report for the Vermilion Water Treatment Plant and Systems. This report has been prepared in accordance with the applicable legislation O. Reg. 170/03 which requires an annual Summary Report to be prepared no later than March 31st for the preceding calendar year and be given to the board of directors (or designate) of a corporation if privately owned. This report must also be supplied to any system/municipality who receives water from the owner's treatment facilities. This report must list the requirements of the Act, the regulations, the system's approval and any order that the system failed to meet at any time during the period covered by the report and specify the action/measures taken to correct the failures. The report must also include the following for the purpose of enabling the owner to assess the capabilities and planned uses of the system; a summary of the quantities and flow rates of the water supplied including monthly averages, maximum daily flows and instantaneous peak flow rates with a comparison of the summary of flow rates to the rated capacities in the systems approval.

This report identifies several areas of improvement and dedication by the staff to continue to strive to produce the best possible product for Vale Inco and the community we serve. The continued upgrades to this facility in terms of equipment, communication and connectivity to the larger complex will aid in the transfer of data as well as enhance overall monitoring. We are underway with a study to look at current and future water demands both within Vale Inco as well as with the City of Greater Sudbury and surrounding communities.

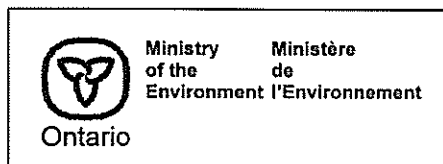
Should you have any questions or require any clarification, please contact me directly.

Thank you,

Peter Larsen
General Foreman Operations, Water Plants
Vale Inco Ltd.

Tom Zanetti
Manager- Utilities, Water plants
Vale Inco Ltd.

SCHEDULE 22



Safe Drinking Water Act, 2002
ONTARIO REGULATION 170/03
Last amendment: O. Reg. 326/08.
DRINKING-WATER SYSTEMS

SCHEDULE 22
SUMMARY REPORTS FOR MUNICIPALITIES
Municipal: Large Residential
Small Residential

SUMMARY REPORT

Schedule 22

Vale Inco Limited
Vermilion Water Treatment Plant
Ontario Regulation 170/03
March 31, 2009

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1. Introduction
2. Executive Summary
3. Legislation Requirements
4. Vermilion Water Treatment Plant Operating Parameters
5. Distributions Systems & Flow Summaries

1.0 Introduction

The purpose of this report is to provide the Manager of Vale Inco's Water Plants with the Vermilion Water Treatment Plant's drinking water systems status and capacities. This report lists the requirements of the Safe Drinking Water Act (SDWA), the regulations, the Plant's compliance to the Act and Regulations, and any order from the MOE that the system failed to meet during the period covered by the report. Should a failure of the system be identified the measures that were taken to correct the failure will be identified.

This report will also list a summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly averages, maximum daily flows and daily instantaneous peak flow rates, with a comparison to the rated capacity of the system. This will enable the reader of the report to assess the capability of the system to meet existing and future planned uses of the system.

In accordance with the Ministry of Environment (MOE) regulation 170/03, the reporting period for this report is January 1st 2008 to December 31st 2008.

This Summary Report is required by the MOE and is filed annually for the previous calendar year. An Annual Report, to fulfill Section 11 of Ontario Regulation 170/03, has been completed separately and details the drinking water quality of the Vermilion Water Treatment Plant. This annual report is available for viewing on site at VALE Inco Limited's Copper Cliff Sewage Treatment Plant and on the City of Greater Sudbury's website.

www.greatersudbury.ca

Purpose

As stated in the introduction this report is required by the Ministry of Environment (MOE), and is filed annually for the previous calendar year and satisfies regulation 170/03, sch. 22.

System

VALE Inco's Vermilion Water Treatment Plant is located off Regional Road 24, across from the VALE Inco Creighton Mine turnoff. The Vermilion Water Treatment Plant produces potable water for:

- VALE Inco Operations – Creighton Mine, Nickel Refinery, Copper Refinery, Smelter, South Mine, North Mine, Clarabelle, Tailings Area and the
- City of Greater Sudbury-Copper Cliff, Lively, Naughton, Whitefish & Whitefish lake First Nations

The Vermilion Water Treatment Plant provides water to the City of Greater Sudbury which serves more than 10,000 people with the treated water. Therefore the Vermilion Water Treatment Plant is designated Large Municipal Residential. The Vermilion Plant obtains its water supply from a surface water source. The surface water source is the Vermilion River. Under Ontario Regulation 170/03 the general obligations of the Vermilion Water Treatment Plant are:

1. **Filtration and Primary Disinfection.** The Vermilion Water Treatment Plant has treatment equipment that is designed to be capable of chemically assisted filtration. Use of conventional filtration, the treatment consists of chemical coagulation with Alum, rapid mixing, flocculation and sedimentation followed by rapid sand filtration. The Vermilion Water Treatment Plant uses chemical coagulant at all times when plant is in operation, monitors and adjusts chemical dosages in response to variations in raw water quality; maintains effective filter backwashes, ensures that the effluent turbidity requirements are met at all times by continuously monitoring filtrate turbidity from each filter; and target filtered water turbidities of less than or equal to 0.3 NTU in 95% of the measurements each month. It is also designed to be capable of achieving, at all times, primary disinfection in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario, including at least 99 per cent removal or inactivation of *Cryptosporidium* oocysts, at least 99.9 per cent removal or inactivation of *Giardia* cysts and at least 99.99 per cent removal or inactivation of viruses by the time water enters the distribution system.

2. **Secondary Disinfection.** Vermilion Water Treatment Plant is operated so that a disinfectant residual is maintained in the distribution system (secondary disinfection). This results in a persistent disinfectant residual that protects the water from microbiological re-contamination, reduces bacterial regrowth, controls biofilm formation and serves as an indicator of distribution system integrity (loss of disinfectant residual indicating that the system integrity has been compromised). Chlorine provides a persistent disinfectant residual that is used for the maintenance of a residual in the distribution system. The Vermilion Water Treatment Plant is therefore capable of secondary disinfection because of its use of liquefied chlorine for chlorination in accordance with the Ministry's *Procedure for Disinfection of Drinking Water in Ontario* and is therefore designed to be capable of achieving, at all locations within the City of Greater Sudbury's Distribution System a free chlorine residual of 0.2 milligrams per liter. The Vermilion Water Treatment Plant is also capable of achieving, at all locations within VALE INCO Limited's Plumbing System a free chlorine residual of 0.2 milligrams per liter.

3. **Operation of Plant.** The Vermilion Water Treatment Plant is operated:
 - 1) ensuring that whenever water is being supplied by the plant the water treatment equipment is in operation and
 - 2) that the treatment equipment is operated in accordance with the Ministry's *Procedure for Disinfection of Drinking Water in Ontario*.
 - 3) that the treatment plant is operated in accordance with Certificate of Approval **#6136-7D4P9C Dated: April 11, 2008**
 - 4) that the water treatment equipment is operated in a manner that achieves the design capabilities
 - 5) that the water treatment equipment provides chlorination for secondary disinfection
 - 6) that the equipment is operated so that, at all times and at all locations within the City of Greater Sudbury Distribution System the free chlorine residual is never less than 0.05 milligrams per liter.
 - 7) Adjustments to the water treatment equipment are carried out only by certified operators.

4. **Operational Checks, Sampling, Testing and Maintenance.** The Vermilion Water Treatment Plant performs operational check, sampling, testing and maintenance in accordance with Ontario Regulation 170/03 (amended to O.Reg 326/08). The following section outlines compliance to:
 - 1) Sample locations
 - 2) Sampling frequency
 - 3) Sample handling
 - 4) Sampling equipment
 - 5) Sampling laboratories
 - 6) Interpretation of Sample Test Results
 - 7) Sampling records, and
 - 8) Equipment maintenance.

Sample locations:

Samples are taken from the point at which water enters the drinking-water systems, distribution system or plumbing works that are connected to the drinking-water system. Microbiological samples and chlorine residual are required to ensure safe drinking water. A water sample is taken and tested for a microbiological parameter, and another sample is taken at the same time from the same location and is tested immediately for free chlorine residual.

Sampling methods. The samples can be taken in the form of grab samples or by a continuous sampler. Continuous monitoring is used for:

- (a) turbidity;
- (b) fluoride;
- (c) free chlorine residual; and

- (d) free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual.

Sampling frequency:

The continuous monitoring equipment comply with standards for minimum testing and recording frequency specified in the table below.

Parameter	Minimum Testing Recording Frequency	Maximum Alarm Standard	Minimum Alarm Standard
Free chlorine residual required to achieve primary disinfection	5 minutes	Not applicable	0.1 milligrams per litre less than the concentration of free chlorine residual that is required to achieve primary disinfection
Free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual required to achieve primary disinfection	5 minutes	Not applicable	0.1 milligrams per litre less than the concentration of combined chlorine residual that is required to achieve primary disinfection
Free chlorine residual in a distribution sample	1 hour	Not applicable	0.05 milligrams per litre
Free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual in a distribution sample	1 hour	Not applicable	0.25 milligrams per litre
Turbidity	15 minutes	1.0 Nephelometric Turbidity Units (NTU)	Not applicable

Sample handling:

All samples are taken and handled in accordance with the directions of the laboratory to which the sample will be delivered for testing, including directions with respect to,

- (a) collection procedures;
- (b) the use of specified kinds of containers or of containers that are provided by the laboratory;
- (c) the labelling of samples;
- (d) the completion and submission of forms that are provided by the laboratory;
- (e) methods of transporting samples, including temperature conditions that must be maintained during transportation; and
- (f) time periods for delivery of samples.

Sample Equipment:

Chlorine residual testing is done by a certified operator using a HACH DR / 2010 spectrophotometer. Continuous monitoring is carried out at locations that have been identified as appropriate by the Ontario Regulation 170/03. Continuous monitoring is carried out on chlorine residual, turbidity and fluoride.

- (a) Chlorine Residual. Sampling and testing for free chlorine residual is carried out by continuous monitoring equipment at a location where the intended contact time has just been completed. This is done in accordance with the Ministry's *Procedure for Disinfection of Drinking Water in Ontario*. The Vermilion Water Treatment Plant provides secondary disinfection with

chlorination and an "on-line" distribution analyzer is located within the City of Greater Sudbury's distribution network and continually tests for free chlorine residual.

- (b) Turbidity. Sampling and testing for turbidity is carried out by continuous monitoring equipment on each filter effluent line. All turbidity testing is conducted using a turbidity meter that measures turbidity in Nephelometric Turbidity Units (NTU)
- (c) Fluoridation. Sampling and testing for fluoride is carried out by continuous monitoring equipment. Grab samples are taken at the end of the fluoridation process at least (1) time per shift. The grab sample is tested for fluoride with a bench meter. The target concentration of fluoride is between 0.5 and 0.8 milligrams per litre at the end of the fluoridation process.

Sampling Laboratories. Testing of a water sample is done by a laboratory that was identified to the Director in a written notice to said Director.

1. Testmark Laboratories LTD.
7 Margaret St., Garson, Ontario
Canada, P3L 1E1 Phone: (705) 693-1121

Interpretation of Sample Test Results:

All testing is carried out and interpreted by a certified operator or water quality analyst. Bench scale test results, as well as, continuous monitoring test results are examined each shift (well within the 72 hours after sampling and testing) by a certified operator. The continuous monitoring equipment has an alarm that sounds if the equipment malfunctions or loses power or a test result for a parameter is above or below the maximum alarm standard at:

- the location where the equipment conducts tests.
- and in the Vermilion Water Treatment Plant Control Room where a certified operator is present.

If any of the testing equipment malfunctions or loses power or a test result for a parameter is above or below the maximum alarm standards, the certified operator takes appropriate action.

Sampling Records. Every sample that is taken has a record made stating the date and time the sample was taken, the location where the sample was taken and the name of the person who took the sample. This does not apply to a sample tested by continuous monitoring equipment.

Equipment maintenance. An Engineering report was prepared on May 31st 2001. After the engineer inspected the plant, the resulting report ensured compliance:

- 1) with Schedule 2 was being provided, and
- 2) compliance with Schedule 6 for operational checks.
- 3) with a maintenance schedule that sets out requirements relating to the frequency with which the water treatment must be inspected, tested and replaced.

The continuous monitoring equipment, as well as, the flow measurement equipment is checked and calibrated in accordance with the manufacturer's instructions by Ontario Mill, Tailings and Water Plant Instrumentation Department personnel and outside certified agencies.

Compliance

Compliance to Safe Drinking Water Act and its associated Regulations:

1. No notices were required to be submitted to the Spills Action Centre in 2008 in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-3 & 16-4 of Schedule 16 of O.Reg.170/03
2. A minimum of 52 weekly samples for microbiological testing was completed as required under section 10-3 & 10-4 in 2008.

3. All operational testing required under Schedule 7 in 2008 was completed.
4. There was additional testing required by an approval or order in 2008 under Table 5.1 of the C of A regarding Suspended Solids being discharged to the environment as part of the existing process. Sampling to review SS levels was initiated in 2008 with some monthly samples missed. This fact was communicated and discussed with MOE local inspector once the issue was identified. Subsequent actions and sampling assurances have been put in place to avoid future errors.
5. All required Organic parameters were tested for in 2008 and none exceeded the levels outlined in Safe Drinking Water Act, 2002 – Ontario Regulation 169/03 (Amended to O. Reg. 327/08) Ontario Drinking-Water Quality Standards.
6. All required inorganic parameters were tested for in 2008 and none exceeded the levels outlined in Safe Drinking Water Act, 2002 – Ontario Regulation 169/03 (Amended to O. Reg. 327/08) Ontario Drinking-Water Quality Standards.

Conclusions and Recommendations

In 2008, the Vermilion Water Treatment Plant was operated in compliance with the Safe Drinking Water Act and all its associated Regulations. There were Suspended Solids samples omitted during the 2008 calendar year and notification to the local MOE office was done immediately upon discovery of issue. Sampling schedules were re-affirmed with all staff and supervisors verbally with notices sent electronically as well as posted at the facility control room. The plant continually monitors CT values and requirements on-line and has alarms associated. Equipment manuals are all available via the web or hard copies on site, and all approvals/upgrades are being dealt with through Vale Inco's Environmental Department and the MOE. Several meetings have been held in 2008 with the City to discuss treatment, operational issues and general communications to ensure cohesiveness in operations between Vale Inco and the City of Greater Sudbury.

2.0 Legislative and Regulation Requirements

Safe Drinking Water Act, 2002, S.O. 2002, c.32

Commencement of this Act:

The date of Royal Assent was December 13th 2002. Sections 1 to 170 of the Act, come into force on a day to be named by proclamation of the Lieutenant Governor.

	O. Reg.	Latest Amendements
SAFE DRINKING WATER ACT, 2002		
Certification of Drinking-Water System Operators and Water Quality Analysts	128/04	323/08
Compliance and Enforcement	242/05	328/08
Definitions of "Deficiency" and "Municipal Drinking-Water System"	172/03	329/08
Definitions of Words and Expressions Used in the Act	171/03	324/08
Drinking-Water Systems	170/03	326/08
Drinking-Water Testing Services	248/03	322/08
Non-Residential and Non-Municipal Seasonal Residential Systems that Do Not Serve Designated Facilities	252/05	532/06
Ontario Drinking-Water Quality Standards	169/03	327/08

The following Regulations are associated with the Safe Drinking Water Act, 2002, S.O. 2002, c.32

1. **O. Reg. 128/04 Certification of Drinking-Water System Operators and Water Quality Analysts**

This Regulation was filed on May 14, 2004 (Amended to 323/08) in 2008, Section 29 listing Operator training requirements and the number of training hours required comes into force. Class III Water Treatment will require 14 hours of continuing education with an additional 26 hours of on-the-job practical training.

The continuing education that is used to meet the training requirements must be approved by the Director using criteria which includes the following:

- a. The training course must have documented learning objectives.
- b. The training course must be planned and be provided by a qualified training provider.
- c. The training course must include a means to verify that the participants have learned the material covered in the course
- d. The training course must cover subject matter that is directly related to the duties typically performed by an operator.

The on-the-job practical training that is used to meet the training requirements must meet criteria that includes the following:

- a. The training must have documented learning objectives.
- b. The training must be provided by a trainer with expertise in the subject matter that is being covered.
- c. The training must be in respect of subject matter that is directly related to the duties typically performed by an operator

Note: The annual number of hours of training set out in the Table to this section may be averaged over the three years during which an operator's certificate is valid but shall not be reduced or prorated for an operator who is employed on a part-time basis.

TABLE ANNUAL TRAINING FOR OPERATORS

Type and Class of Subsystem Where the Operator is Employed	Training Requirements	Minimum Total Hours
Limited Groundwater or Limited Surface Water	7 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	20
Class I Water Treatment or Class I Distribution or Class I Distribution and Supply	7 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	30
Class II Water Treatment or Class II Distribution or Class II Distribution and Supply	12 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	35
Class III Water Treatment or Class III Distribution or Class III Distribution and Supply	14 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	40
Class IV Water Treatment or Class IV Distribution or Class IV Distribution and Supply	14 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	50

O. Reg. 128/04, s. 29, Table.

2. **O. Reg. 242/05 Compliance and Enforcement**

This regulation lists the requirements for inspections. What to do when deficiencies and contraventions are found. This regulation also deals with enforcement, investigations and notices required once investigations have been completed.

3. **O. Reg. 172/03 Definitions of "Deficiency" and "Municipal Drinking-Water System"**

Ontario regulation 172/03 (Amended to O.Reg 329/08). Provides definitions of words and expressions within the Safe Drinking Water Act and associated Regulations.

4. **O. Reg. 171/03 Definitions of Words and Expressions Used in the Act**

Ontario regulation 171/03 (Amended to O.Reg 324/08) – Provides definitions of words and expressions within the Safe Drinking Water Act and associated Regulations.

5. **O. Reg. 170/03 Drinking-Water Systems**

This Regulation was filed on 10/02/2004. Ontario Regulation 170/03 is amended to O.Reg 326/08. This regulation outlines the requirements for:

- 1) Types of Drinking Water Systems
- 2) Required reports (annual, summary reports)
- 3) Retention of records
- 4) Treatment equipment requirements
- 5) Types of Treatment
- 6) Operational Checks, Sampling and Testing
- 7) Use of accredited laboratories
- 8) Maintenance and Operational
- 9) Microbiological Sampling and Testing
- 10) Chemical Sampling and Testing
- 11) Reporting Adverse Test Results and Other Problems
- 12) Corrective Action
- 13) Engineers' Reports
- 14) Inorganic Parameters
- 15) Organic Parameters

6. **O. Reg. 248/03 Drinking-Water Testing Services**

Ontario Regulation 248/03 (Amended to O.Reg. 322/08) – Drinking-Water Testing Services is the regulation governing accredited laboratories that came into effect October 31, 2004.

- 1) Lists systems that do not require drinking-water testing licence
- 2) Lists prescribed tests of the Safe Drinking Water Act
- 3) Lists person(s) to do water quality analysis
- 4) Lists the types of tests that can be conducted for the sole purpose of carrying out research or Criteria for drinking-water testing services
- 5) Conditions of drinking-water testing licence
- 6) Handling samples
- 7) Testing records
- 8) Laboratory qualifications and accreditation

7. **O. Reg. 252/05 Non-Residential and Non-Municipal Seasonal Residential Systems That Do Not Serve Designated Facilities**

This regulation covers the requirements of a Non-Residential and Non-Municipal Seasonal Residential Systems that do not serve designated facilities. It outlines the exemptions, the certified operator requirements, the approval requirements, record keeping, forms, sampling and testing, reporting, corrective action and the warning notices regarding potential problems.

8. **O. Reg. 169/03 Ontario Drinking-Water Quality Standards**

Ontario Regulation 169/03 (Amended to O.Reg 327/08). This regulation sets out standards in Schedules 1, 2 and 3 as prescribed drinking-water quality standards. Also in this regulation are what are deemed as compliance standards.

9. **O. Reg. 173/03 Schools, Private Schools and Day Nurseries**

This regulation deals with private schools and day nurseries that do not obtain their water from a drinking water system. It presents the interpretation, the requirements for weekly flushing, record keeping and the exemptions.

Exemption

Exemptions for Vermilion Water Treatment Plant

The City of Greater Sudbury purchases approximately 20% of the Vermilion Water Treatment Plant daily production. The other 80% is used by VALE Inco Limited Operations. The distribution system is owned and maintained by the City of Greater Sudbury. City of Greater Sudbury personnel are required to take samples in Distribution System. Should they find a sample that is non-compliant then they must alert the Vermilion Water Treatment Plant as

well as report these test values to the Ministry of Environment Spill Center and the Medical Officer of Health.

Engineer's Report

An Engineering report was prepared on May 31st 2001. The required engineers report was completed to certify compliance to existing regulations. The Engineer made recommendations on all the deviations that were found within the drinking water system. Under the SDWA, the requirement for an Engineer's Reports has been removed as part of the regulations. This will be addressed in the upcoming DWQMS standards and licensing program.

3.0 Vermilion Water Treatment Plant Operation

In 2008, the Vermilion Water Treatment Plant was operated in compliance with the Safe Drinking Water Act and all its associated Regulations. There were Suspended Solids samples omitted during the 2008 calendar year and notification to the local MOE office was done immediately upon discovery of issue. Sampling schedules were re-affirmed with all staff and supervisors verbally with notices sent electronically as well as posted at the facility control room. The plant now monitors CT values and requirements on-line continual and have alarms associated. Equipment manuals are all available via the web or hard copies on site, and all approvals/upgrades are being dealt with through Vale Inco's Environmental department and the MOE. Several meeting have been held with the City to discuss treatment, operational issues and general communications to ensure cohesiveness in operations between Vale Inco and the City of Greater Sudbury.

The treatment system was operated so that the maximum flow rate of 81,800 m³/d, was never exceeded in 2008. The *peak* daily flow was recorded in November 4th, 2008 at 65,354 m³/d for a capacity vs. design of 79%.

The Vermilion Water Treatment plant operated and maintained the disinfection facilities of the plant in such a manner that it was in accordance with the Ministry Procedure B13-3 entitled "Chlorination of Potable Water Supplies in Ontario", dated January 2001.

The water works was operated in such a manner that a sufficient quantity of water was directed to Meatbird Creek. The plant targeted maintaining a minimum average flow of 106.0 L/s to the creek. There were only a few occasions where this was not met due to emergency maintenance and repairs to water lines and the MOE was notified.

Monitoring and Recording:

1. Raw water from river to plant:
 - Flow rate of the raw water feed to the Treatment Plant was recorded daily
 - Quantity of water was calculated daily.

2. Treated Water:
 - Maximum design capacity of the Vermilion Water Treatment Plant 81,800 m³/d.
 - Flow rate of treated water supplied by the water works was recorded daily
 - Volume of water conveyed through the treatment system was recorded daily

3. Meatbird Creek System:
 - Target Flow Rate in Certificate of Approval 106 L/s
 - Flow rate to Meatbird Creek.
 - Daily quantity of water directed to Meatbird Creek.

4.0 Water Distribution Systems & Flow Summaries

The City of Greater Sudbury owns and manages the distribution system. They sample the water in the distribution system and report any problems to the Vermilion Water Treatment Plant Operator and any exceedances from standards to the Ministry of Environment and the Medical Officer of Health.

The Following Tables Summarize the Monthly Flows for the Vermilion Water Treatment Plant and the Distribution System:



Monthly Summary
Vermilion WTP

January 2008

Date	Plant Raw Water Flow (FI-10)			CC Treated Water Flow (FIC 98330)			Creighton Treated Water Flow (FIC-31)			U-Drain Flow (FI-100)						
	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d				
1-Jan	38219.78	39768.94	50523.97	30130.77	27293.57	28085.17	38595.04	1480.85	1496.81	9043.81	23.61	338.25	212.89	729.75	0.00	
2-Jan	38319.72	38541.40	48280.70	34281.78	27444.27	27444.27	32148.81	2052.83	2110.66	2869.16	246.50	369.47	220.22	791.36	13.03	
3-Jan	39225.19	39188.83	46363.03	28488.92	28111.22	28062.60	32365.34	1957.44	1958.52	2868.54	90.85	185.15	213.86	795.61	42.09	
4-Jan	38550.63	38476.82	46335.84	30016.08	27762.21	27771.34	31716.15	1468.74	1400.59	2867.28	55.56	375.27	224.99	786.70	45.52	
5-Jan	38270.51	38223.95	55273.45	47574.44	27913.62	27827.86	31871.10	14285.92	1025.85	2864.90	54.24	376.32	226.43	772.99	47.50	
6-Jan	38255.36	38271.78	48924.39	28288.97	27444.23	27496.69	31066.27	1370.32	1377.41	2878.20	56.64	376.76	225.88	779.64	0.26	
7-Jan	38964.75	39186.13	46398.13	30457.47	27855.33	28014.95	33238.75	15608.84	1695.11	1705.63	2887.33	52.48	349.60	209.41	745.32	45.57
8-Jan	40213.18	39600.10	46565.65	30613.01	29199.90	28733.01	32413.12	1533.09	1516.25	2853.03	62.75	347.31	206.31	742.09	46.18	
9-Jan	36578.43	36897.78	45899.86	20678.88	26325.26	26527.39	46298.20	1930.56	1979.21	2874.63	57.11	358.31	218.42	795.70	17.70	
10-Jan	36301.34	36454.09	44811.91	28999.40	26351.76	26502.75	31273.37	14204.45	1829.49	1834.84	2872.13	58.53	404.97	242.02	834.77	28.16
11-Jan	35654.79	35169.84	43233.55	28402.62	25855.87	25506.77	30662.72	11887.42	1965.39	1935.16	2883.72	57.60	427.64	255.02	807.35	34.08
12-Jan	37063.72	37095.78	47279.33	34008.88	27884.85	27885.86	30923.53	17431.23	2227.71	2207.01	2879.66	62.73	339.44	204.20	714.38	8.57
13-Jan	36175.66	36107.32	43620.82	26388.89	27790.22	27728.50	30814.74	1323.38	1327.26	2869.11	64.35	381.66	228.48	755.60	31.76	
14-Jan	36314.21	36393.29	44479.35	28715.26	27637.29	27678.96	30862.16	13395.11	1803.75	1838.43	2877.13	255.56	368.75	220.96	779.08	18.09
15-Jan	36823.72	36798.54	44598.55	27877.00	27687.57	27629.22	31028.67	15438.15	1807.91	1804.37	2868.27	62.60	366.86	219.79	737.63	26.96
16-Jan	37063.72	37095.78	47279.33	34008.88	27884.85	27885.86	30923.53	17431.23	2227.71	2207.01	2879.66	62.73	339.44	204.20	714.38	8.57
17-Jan	37825.34	37833.95	47279.33	34008.88	27884.85	27885.86	30923.53	17431.23	2227.71	2207.01	2879.66	62.73	339.44	204.20	714.38	8.57
18-Jan	34071.73	34176.60	46471.61	27257.85	24178.93	24277.00	27043.83	15667.44	1918.07	1892.34	2869.85	56.69	433.69	261.81	784.15	8.04
19-Jan	35993.46	35641.62	46846.53	30104.49	25577.27	25627.97	29619.71	17279.21	1576.62	1566.69	2882.05	63.21	406.37	242.96	782.85	0.00
20-Jan	37825.34	37833.95	47279.33	34008.88	27884.85	27885.86	30923.53	17431.23	2227.71	2207.01	2879.66	62.73	339.44	204.20	714.38	8.57
21-Jan	19181.44	38368.72	46390.67	29628.61	27269.34	27363.23	30502.98	14230.62	1803.75	1828.25	2861.90	75.16	334.61	201.56	733.18	16.08
22-Jan	37922.25	37933.18	47293.10	30443.16	27032.38	27073.81	32048.66	14577.51	1811.70	1813.86	2874.50	55.22	360.75	216.97	742.16	4.63
23-Jan	37979.03	37870.89	46889.18	30845.44	27311.74	27197.40	30714.81	14113.89	1771.57	1767.73	2870.57	63.98	369.27	221.20	792.30	7.67
24-Jan	37661.68	37845.74	46578.28	29259.41	26456.24	26438.56	30683.22	14683.32	1960.84	1956.12	2898.10	64.19	377.20	225.62	784.38	20.92
25-Jan	38442.36	38360.13	46864.77	29445.33	26768.16	26711.90	29954.89	16336.91	1826.46	1820.86	2881.33	49.92	366.73	220.13	744.98	18.27
26-Jan	38925.36	39171.97	47142.78	30608.02	26952.88	27139.79	30365.18	16939.81	1932.45	1946.16	2887.66	61.31	345.38	207.99	716.54	17.45
27-Jan	38555.93	38276.93	47353.38	29439.87	26595.54	26421.01	30101.66	17217.39	1447.54	1399.81	2891.47	56.97	379.49	228.10	726.01	24.38
28-Jan	38561.23	38668.79	49069.85	22635.43	26336.62	26437.72	31122.74	13663.89	2292.82	2289.26	2885.18	270.94	363.09	219.65	786.57	0.00
29-Jan	34029.33	33988.45	45898.79	14630.35	23221.23	23188.17	27708.62	15597.11	1839.33	1888.84	2810.12	484.16	466.41	281.32	828.70	20.68
30-Jan	33120.83	32935.86	44001.71	26325.19	24042.66	23918.11	29369.38	12522.24	2201.97	2152.37	2862.42	63.08	446.97	264.68	802.65	34.30
31-Jan	37510.40	37108.22	45846.13	28463.88	27426.06	27118.55	30432.62	12355.98	2140.65	2121.46	2850.63	516.81	356.70	210.94	749.68	0.97
1-Feb																

Monthly To 1133046.22

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54196.87

11564.47

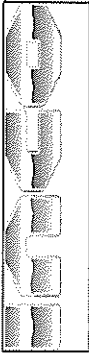
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37195.79106 46547.33007 26880.67336

26816.01204 31508.29289 13871.9233

1748.89679 3071.12355 106.9603

227.3726 773.4681 21.16125



Monthly Summary
Vermillion WTP

February 2008		Plant Raw Water Flow (FI-10)		CC Treated Water Flow (FIC 98530)		Craighton Treated Water Flow (FIC-31)		U-Drain Flow (FI-100)								
Min Day	31,634.47	41,006.07	-471.35	-11,865,436.38	22,884.35	26,967.11	899.41	910.90	2,858.36	17.27	273.71	164.76	689.73	0.00		
Max Day	38,942.80	46,372.97	31,333.82	32,967.90	32,874.21	43,208.31	2,394.27	2,375.42	6,770.16	561.20	452.90	272.10	831.00	79.40		
Date	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total L/s	Average L/s	Peak L/s	Minimum L/s
1-Feb	37156.08	37394.95	44245.44	28650.72	26799.95	26958.27	30563.91	11500.43	2030.49	2057.09	2875.24	66.23	348.38	210.45	748.66	34.10
2-Feb	34889.38	35057.86	43208.18	27345.83	25002.05	25002.05	28879.85	12564.22	2479.34	1463.82	2877.26	53.55	413.99	250.85	779.01	55.44
3-Feb	34159.55	34121.66	43905.64	28507.17	25080.82	25040.27	28860.03	14214.82	947.11	977.87	2870.52	47.38	435.37	261.00	808.95	39.19
4-Feb	33726.50	33821.10	46372.97	27447.02	25176.77	25285.15	28856.10	17170.94	2198.19	2183.33	2866.06	57.65	413.34	248.20	772.97	15.73
5-Feb	35009.00	35168.58	44908.45	28625.39	26625.82	26731.19	29880.52	17405.47	2138.76	2164.90	2888.36	442.39	373.39	224.74	750.72	9.03
6-Feb	35537.44	35396.60	44033.04	30981.05	26344.19	26226.89	29609.99	16702.15	2394.27	2375.42	2867.07	59.88	362.95	218.40	831.00	12.25
7-Feb	32106.34	32041.35	43718.63	27112.41	22962.30	22884.35	26967.11	16420.65	2088.41	2084.99	2882.67	61.82	462.50	272.10	794.78	7.32
8-Feb	31948.87	31952.03	43772.48	25084.12	23486.20	23591.87	27822.89	13226.70	2013.08	2009.10	2869.17	59.94	442.44	267.54	801.56	3.55
9-Feb	31652.09	31634.47	41006.07	26022.61	26249.55	26231.93	31458.56	13501.11	1764.38	1753.74	2879.65	62.10	450.11	266.77	809.40	73.09
10-Feb	33943.02	33930.56	42244.93	27214.80	28760.04	28754.45	32607.38	14587.46	1568.67	1565.65	2872.81	70.56	392.31	234.68	750.87	37.28
11-Feb	33867.25	34093.54	43176.36	25598.63	29105.27	29224.31	33902.52	14202.29	1688.14	1737.82	2859.13	419.00	381.22	229.33	752.66	5.16
12-Feb	34068.70	33743.23	42167.56	27404.41	28996.25	28706.11	32866.08	13277.94	2070.62	2027.04	2869.04	74.81	389.35	232.33	811.24	19.76
13-Feb	32582.55	33051.08	42038.65	26739.11	27315.53	27272.22	31436.60	15418.36	2050.18	2108.06	2870.94	217.32	400.03	243.21	737.41	23.66
14-Feb	33410.80	33073.70	42209.49	12523.24	28065.04	27791.28	31824.46	16992.30	1894.98	1856.60	2877.90	304.55	415.87	248.08	800.28	19.11
15-Feb	32860.33	33326.92	42109.72	27284.43	28433.74	28794.45	33823.99	17821.48	2014.97	2014.74	2876.40	129.74	396.89	239.82	779.65	41.37
16-Feb	35560.15	35549.76	44501.67	27917.90	32007.92	32050.66	35866.71	17436.60	1609.94	1605.57	2883.47	136.65	337.93	201.71	726.17	79.40
17-Feb	34986.28	34951.50	43574.43	27816.32	32967.90	32974.21	36549.79	17512.80	1293.85	1296.97	2883.86	161.11	339.37	204.06	714.67	3.51
18-Feb	34507.81	34426.85	43438.23	28080.56	32342.55	32200.75	36310.04	16271.33	1594.42	1585.30	2873.37	56.21	352.66	211.39	761.32	10.39
19-Feb	32681.73	32634.91	42974.94	27265.68	28870.57	28912.24	33491.61	13595.41	1774.98	1792.08	3000.79	144.72	402.40	243.20	741.75	30.65
20-Feb	31847.42	31756.46	42630.11	26937.75	28870.57	28774.53	31417.99	13779.15	1986.21	1987.00	3149.94	561.20	416.12	249.01	796.74	14.40
21-Feb	32351.64	32355.64	41490.46	27600.42	28733.16	28725.04	31559.60	14180.64	2084.25	2082.69	2891.18	125.18	412.44	247.69	827.59	54.77
22-Feb	32837.81	32830.39	46139.25	28330.10	25562.90	25658.41	37042.46	1506.13	1828.73	1849.03	6770.16	17.27	406.06	242.57	778.25	0.00
23-Feb	38035.81	38146.22	45465.40	24837.43	31499.54	31610.26	34781.30	14742.22	1706.84	1698.94	2899.47	54.28	286.94	178.87	710.78	4.25
24-Feb	38942.80	38879.88	45677.72	31333.92	32842.23	32768.97	36349.18	15713.15	899.41	910.90	2867.34	24.51	273.71	164.76	689.73	0.00
25-Feb	33226.82	33287.30	43012.56	28330.35	26851.37	27040.12	43208.31	1333.39	1637.19	1642.90	2874.05	55.36	320.67	193.50	734.43	0.00
26-Feb	37642.13	37608.70	42875.67	28637.77	32326.28	32293.22	37040.90	15267.57	1963.11	1960.23	2885.21	59.49	332.41	198.28	733.20	44.20
27-Feb	36506.50	36248.65	45670.19	28406.06	31104.72	30875.41	34649.82	12652.83	1645.14	1630.02	2874.00	57.91	380.66	227.81	759.64	55.17
28-Feb	35760.02	35533.75	44205.66	30477.39	30566.82	30462.08	35529.37	13144.67	1752.65	1741.42	2876.79	49.09	384.62	229.58	797.75	42.17

Monthly To 961804.82 34361.34379 43599.06788 25196.171 -11101408.51 28353.41728 32952.00887 13860.233 50128.31 1791.54707 3029.35225 129.6397 10726.55 230.0327 767.9058 25.92584

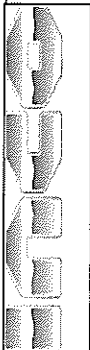
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Monthly Summary
Vermilion WTP

APRIL 2008		Plant Raw Water Flow (F1-10)		CC Treated Water Flow (FIC 98530)			Craighton Treated Water Flow (FIC-31)			U-Drain Flow (F1-100)						
Min Day	23,698.19	24,076.82	31,884.37	-499.27	26,624.69	27,046.33	33,798.70	-506.19	1,249.19	1,268.16	2,829.01	51.99	242.00	146.17	686.86	0.00
Max Day	41,011.14	41,180.99	66,491.65	35,077.64	37,911.65	38,088.96	43,486.89	18,453.00	2,318.56	2,334.48	3,801.26	1,160.21	638.56	381.43	926.71	168.73
Date	Total m ³ /d	Average		Minimum m ³ /d	Total m ³ /d	Average		Minimum m ³ /d	Total m ³ /d	Average		Minimum m ³ /d	Total L/s	Average		Minimum L/s
		m ³ /d	m ³ /d			m ³ /d	m ³ /d			m ³ /d	m ³ /d			L/s	L/s	
1-Apr	37256.02	37149.50	46589.37	28010.48	34577.84	34500.42	39531.42	11497.76	1677.69	1649.88	2879.48	52.84	353.87	213.42	760.42	1.16
2-Apr	35594.98	35474.46	46562.02	27736.45	32258.89	32122.00	35962.03	14909.94	2161.09	2155.44	2876.08	74.45	401.79	240.81	790.07	3.03
3-Apr	35716.11	35732.70	45126.04	21925.13	31524.53	31551.72	35818.95	11300.83	2314.40	2334.48	3801.26	1160.21	406.47	243.97	790.48	7.76
4-Apr	35400.03	35253.99	43408.22	26718.77	32740.40	32604.91	37314.60	11444.87	2034.28	2003.02	3165.05	479.66	399.71	238.42	781.53	64.86
5-Apr	36512.94	36713.00	45517.61	30646.30	33665.04	34046.48	37815.47	15004.68	1791.28	1795.96	2876.71	51.99	369.27	222.49	757.78	27.51
6-Apr	37600.49	37426.29	44019.53	33679.59	35351.95	35197.86	39864.38	14195.05	1402.12	1399.63	2883.68	62.28	355.83	212.05	777.04	46.53
7-Apr	37664.91	37803.16	47245.61	29015.66	36747.26	36974.22	40353.99	15648.07	2091.82	2107.54	2857.34	1033.89	273.47	164.83	722.13	0.48
8-Apr	40045.11	39936.21	47785.96	33270.75	36812.37	36676.58	41095.30	12154.52	2141.03	2149.92	2840.24	485.55	286.91	171.11	686.86	0.00
9-Apr	40791.59	40685.13	46421.16	31168.50	36519.00	36439.67	40361.24	13488.86	2318.56	2300.76	2883.99	322.16	282.00	169.46	708.73	47.91
10-Apr	38365.90	38641.35	46169.95	29138.99	33824.92	34015.92	40363.37	16003.18	2281.09	2315.61	2881.66	173.15	349.95	212.82	735.13	62.46
11-Apr	39560.57	39691.78	46491.65	31937.77	32614.72	32749.70	38860.82	12521.51	2211.82	2193.99	2856.53	167.42	392.18	236.72	723.34	65.58
12-Apr	38821.66	38636.26	46985.59	31436.46	32419.77	32431.92	36737.87	15179.60	1678.45	1664.72	2864.57	368.91	413.42	248.40	740.11	108.04
13-Apr	37166.68	36990.88	45707.20	31436.46	30944.22	30765.18	34632.13	15672.47	1325.65	1329.33	2840.31	144.20	459.95	275.13	807.21	168.73
14-Apr	36158.25	35967.89	48400.21	31436.46	30988.51	30863.83	43486.89	12521.51	2153.90	2168.41	2866.28	127.09	418.16	249.06	710.82	16.96
15-Apr	37440.74	37987.91	43117.52	26312.73	33508.08	33596.44	37383.66	13909.76	2176.61	2157.21	2859.23	188.60	374.25	223.75	781.69	96.98
16-Apr	38072.15	38129.16	47631.93	31333.71	34424.15	34506.35	39055.08	12728.58	2030.87	2057.70	2839.63	313.46	356.53	214.47	733.37	7.00
17-Apr	40131.41	40118.26	47960.51	16629.15	36678.36	36666.69	40864.68	13057.83	1813.97	1791.62	2829.01	169.66	292.21	174.59	729.64	0.00
18-Apr	41011.14	41180.99	48147.01	35077.64	37911.65	38088.96	41213.82	18402.59	1760.97	1765.04	2847.96	214.00	242.00	146.17	707.94	0.00
19-Apr	38209.29	39043.80	47357.92	30197.48	37511.15	37389.14	41198.69	13328.09	1662.55	1654.51	2866.96	223.09	272.73	166.32	753.03	0.00
20-Apr	30670.91	30578.04	44029.34	13470.56	32002.24	32010.51	36661.37	13182.99	1420.68	1427.19	2869.41	176.76	453.13	276.09	773.74	21.16
21-Apr	29571.63	29524.10	42609.14	19724.05	33244.62	33169.93	37871.00	16385.60	1770.44	1797.41	3018.41	195.25	638.56	381.43	921.78	138.66
22-Apr	29718.51	29677.46	46851.54	22458.15	33298.37	33289.48	37188.48	16008.84	2171.69	2164.05	2854.73	342.57	470.34	278.48	921.15	0.95
23-Apr	28514.74	28362.97	35140.40	23769.84	32862.67	32699.33	37022.92	14532.08	1946.84	1920.48	2859.24	116.77	381.02	227.59	800.70	50.67
24-Apr	27703.15	27609.10	37667.56	10772.56	28940.98	29069.96	39094.25	17107.04	2061.53	2066.84	2851.08	326.59	424.65	256.14	880.53	0.00
25-Apr	26718.95	26783.83	35565.58	20244.57	31974.23	32068.91	35813.44	17107.04	1600.85	1602.98	2841.87	66.23	397.97	239.78	783.81	30.67
26-Apr	26750.74	26540.85	31894.37	21270.88	31873.16	31619.12	35880.56	12523.87	1411.96	1399.07	2866.40	151.08	411.74	246.04	786.91	77.93
27-Apr	26085.27	26244.81	33120.09	22514.48	31051.73	31196.63	35253.34	10416.13	1249.19	1268.16	2850.73	166.23	418.66	251.67	804.94	76.95
28-Apr	26355.67	26365.00	33270.05	20898.37	31323.14	31049.52	34952.52	9955.45	1444.89	1423.02	2866.64	187.36	424.44	253.27	785.76	90.13
29-Apr	23698.19	24078.82	36542.30	5752.55	26624.69	27046.33	34725.77	9213.71	1967.28	2034.30	3286.05	512.40	471.45	288.59	926.71	0.29
30-Apr	27667.57	27769.73	66165.87	4251.37	29270.69	29227.42	33798.70	18453.00	2276.17	2247.30	2888.60	349.78	432.37	256.66	747.01	45.65

Monthly To 1026155.30 34202.58127 45771.37561 20471.2351 993689.34 33121.83638 38014.89079 12897.21458 56349.63 1878.16606 2922.3712 280.12163 11625.03 232.6572 777.679 41.93427



Monthly Summary
Vermilion WTP

Date	Plant Raw Water Flow (FI-10)			CC Treated Water Flow (FI-3)			Croighton Treated Water Flow (FI-3)			U-Drain Flow (FI-100)				
	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total L/s	Average L/s	Peak L/s	Minimum L/s	
1-May	32553.02	32526.33	38999.03	31398.09	31439.16	36464.46	15264.13	2175.48	2163.21	2870.41	413.25	247.41	776.70	106.85
2-May	33279.82	33104.76	37761.30	34532.03	34342.20	39590.12	11949.36	2066.46	2049.92	2881.41	352.17	208.09	748.65	95.13
3-May	32145.71	32088.30	36985.91	34421.01	34417.56	38821.22	14099.12	1496.37	1492.03	2881.29	352.02	212.33	764.18	90.23
4-May	29453.53	29409.45	34683.00	32663.93	32700.84	36698.31	14077.57	1272.66	1270.88	2877.02	396.05	239.67	787.26	129.66
5-May	29302.11	29322.95	39939.55	32464.44	32472.39	36825.25	11307.23	1627.73	1656.94	2880.77	389.67	233.88	789.35	2.80
6-May	17543.11	17921.46	41249.26	17089.24	17572.76	38356.01	3339.37	2163.74	2174.50	6296.80	287.22	169.75	628.18	0.00
7-May	39537.86	39562.18	45982.77	34633.48	34689.12	38282.78	13278.96	2047.53	2050.81	2858.16	35.65	227.72	134.35	712.25
8-May	31806.54	31739.10	50265.46	28725.21	28689.22	41627.00	3339.93	1758.70	1755.88	2846.31	337.36	209.92	859.69	0.00
9-May	38582.42	38413.98	47426.31	36467.89	36331.96	46507.03	16363.72	1746.97	1715.97	2876.30	382.27	501.86	876.11	103.96
10-May	36695.78	36669.77	42527.95	34795.12	34763.48	46860.11	1349.50	1349.50	1342.69	2844.41	62.05	389.77	232.10	971.31
11-May	37168.19	37207.96	43476.37	34601.31	34630.70	38401.42	15762.41	1418.01	1423.12	2851.93	168.99	168.99	769.83	28.96
12-May	36349.03	36463.14	41024.76	32771.44	32846.04	37516.38	14829.74	1990.37	1999.99	2844.69	299.21	180.78	719.87	85.97
13-May	36713.95	36706.77	41047.79	32517.82	32528.28	36403.97	14216.70	2187.59	2209.01	2853.72	71.47	315.04	188.54	764.95
14-May	36377.80	36330.63	44464.62	32545.83	32548.41	36403.97	14216.70	2101.66	2091.43	2848.99	194.46	317.92	191.70	753.33
15-May	33660.07	33189.49	43997.98	31031.29	30928.38	36306.13	16366.51	2109.99	2098.30	2862.43	437.02	357.48	772.07	0.00
16-May	30690.60	30877.19	37595.39	26723.29	26723.29	36721.72	13315.96	1890.06	1900.79	2858.13	565.36	362.09	217.14	754.88
17-May	30312.06	30167.72	35137.72	24249.19	24249.19	32912.78	16955.22	1735.23	1714.29	2879.59	313.85	308.96	184.58	751.62
18-May	29109.81	29167.86	34413.48	32327.99	32886.33	37294.42	15828.77	1389.82	1386.75	2868.66	98.20	321.80	194.16	719.56
19-May	28843.32	28901.44	43565.62	31904.96	31571.60	44025.01	3319.62	1196.95	1226.72	2872.93	208.10	170.34	714.67	68.77
20-May	34542.63	34658.92	40457.24	26880.14	27141.75	31663.15	14758.36	1933.21	1966.97	4432.89	74.04	309.65	186.11	718.54
21-May	34789.44	34614.54	80637.14	28743.38	28680.26	81029.61	3393.03	2245.88	2171.12	4531.94	50.25	291.12	176.11	734.07
22-May	33482.72	33504.86	40148.33	28679.41	28681.29	31344.97	17770.92	2145.57	2166.02	10935.01	312.41	186.17	743.59	19.61
23-May	32221.42	32213.83	37975.91	28129.77	28191.60	31634.93	14864.50	1784.82	1776.55	2871.69	89.46	337.50	203.48	763.32
24-May	31709.63	31690.14	38404.38	29225.64	29239.98	36581.13	12653.82	1361.23	1351.50	2837.81	83.23	295.82	177.70	742.54
25-May	30365.05	30328.98	36549.32	29318.39	29260.99	32257.99	15453.78	1225.94	1239.65	2859.98	67.67	295.86	176.96	740.84
26-May	33014.84	33186.60	40965.54	29399.77	29515.69	33781.87	13851.17	1609.81	1817.59	2878.01	81.01	253.23	152.28	695.17
27-May	33166.26	33163.93	39818.42	29497.44	29496.92	33079.82	15771.43	1927.53	1933.94	2863.21	219.71	239.00	143.27	699.14
28-May	31979.15	31880.90	38101.79	28623.76	28548.70	32123.03	17576.21	2094.47	2082.36	2848.12	108.66	160.24	729.89	0.00
29-May	31349.26	31301.28	38884.51	28315.31	28315.31	31645.86	17453.03	1733.72	1718.00	2888.84	58.99	152.72	171.43	727.01
30-May	31176.65	31154.75	40676.70	28651.11	28651.11	32785.46	13769.12	1435.43	1429.15	2828.33	235.75	287.37	174.17	703.36
31-May	37163.65	37320.52	42225.49	30832.93	30962.05	34535.33	16055.99	1285.90	1271.47	2866.87	60.54	474.30	284.52	822.83
1-Jun														

Monthly Totals: 1014785.44 32733.34472 41766.0983 21300.99444 955776.83 30835.11329 38122.99305 12352.3566 54707.52 10017.90 1762.8244 3338.60207 164.5539 196.5156 756.5736 42.75815

Averages:



Monthly Summary
Vermillion WTP

June 2008		Plant Raw Water Flow (FI-10)		CC Treated Water Flow (FIC 98530)		Creighton Treated Water Flow (FIC-31)		U-Drain Flow (FI-100)								
Min Day	28,283.08	28,037.33	34,056.52	148.89	25,311.15	25,078.67	29,712.58	-469.53	891.09	940.09	1,986.93	-58.20	213.21	127.72	689.93	0.00
Max Day	39,405.37	39,587.87	51,088.81	36,510.52	32,511.33	32,301.43	37,906.96	23,503.49	2,264.81	2,279.81	4,997.95	1,810.10	624.85	377.79	909.30	259.01
Date	Total	Average	Peak	Minimum	Total	Average	Peak	Minimum	Total	Average	Peak	Minimum	Total	Average	Peak	Minimum
	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	L/s	L/s	L/s	L/s
1-Jun	35501.10				28340.99				1136.00				551.46			
2-Jun	36193.07	36399.86	41022.78	29514.03	29099.05	29295.91	33596.36	16345.21	2156.17	2171.23	3228.86	61.06	509.98	306.88	855.43	225.54
3-Jun	37094.00	36986.37	48495.20	24837.43	29977.05	29488.57	31929.65	17588.56	2264.81	2279.81	3178.03	78.78	460.60	274.88	835.29	0.00
4-Jun	38359.84	38388.95	44821.46	25140.22	29829.42	29848.41	32148.37	17836.18	2166.39	2167.67	2823.64	178.97	498.39	299.25	843.31	112.71
5-Jun	37047.06	37113.62	41580.04	30213.31	30148.15	30259.30	33195.30	17675.32	1972.20	1956.00	2851.96	314.73	488.36	293.71	826.82	168.00
6-Jun	35647.97	35708.95	36982.19	33157.09	30586.50	30664.66	32666.60	17637.03	1589.49	1622.81	2873.93	171.61	481.04	289.83	829.59	246.12
7-Jun	29889.54	29814.07	37726.87	21253.19	26144.70	26009.71	31709.37	17994.81	1429.75	1384.23	2867.68	100.01	624.85	377.79	824.94	245.35
8-Jun	29721.53	29774.51	36583.83	22227.08	26578.89	26650.41	29712.58	17267.92	1331.33	1337.89	4997.95		614.29	367.91	857.41	246.22
9-Jun	31397.71	31531.00	35929.70	28431.55	28555.25	28663.02	32005.85	11136.29	1634.54	1677.95	2832.92	373.53	547.08	326.88	815.16	246.10
10-Jun	34283.71	34142.98	36094.00	28535.81	31555.19	31438.68	34624.02	17552.40	2039.58	2004.37	2874.42	201.57	447.81	267.39	803.80	231.21
11-Jun	28283.08	28037.33	34056.52	17995.41	25311.15	25078.67	30780.48	15319.11	1811.70	1806.19	2883.88	108.36	503.52	300.61	763.47	98.95
12-Jun	29256.69	29295.33	35385.38	24879.91	28912.00	28966.17	31961.40	15195.85	1661.04	1648.17	2879.71	157.95	321.98	190.89	682.37	49.41
13-Jun	31093.37	31154.88	36059.80	28817.46	29093.91	29168.96	32041.83	15281.16	1429.37	1435.57	2872.77	58.88	227.38	136.73	740.38	0.39
14-Jun	30496.79	30509.36	36626.08	28722.80	29295.68	29305.40	32320.56	15781.82	1390.38	1409.58	2873.25	96.77	218.64	131.01	704.28	1.10
15-Jun	30764.79	30865.08	36210.20	28983.38	29190.06	29250.62	32505.14	15088.86	1516.81	1534.44	2851.50	79.54	213.21	127.72	688.84	0.53
16-Jun	33187.46	33166.70	39766.65	26700.77	30734.51	30729.36	33662.95	23503.49	2095.98	2059.37	2885.28	141.31	357.29	217.97	689.39	89.88
17-Jun	34609.13	34641.07	41227.05	27375.65	32194.16	31942.53	34868.21	23226.26	1660.28	1649.17	2881.98	76.14	431.14	256.90	669.93	77.53
18-Jun	34454.81	34757.05	45293.96	32087.47	31459.79	31722.04	33837.46	16205.95	1615.99	1628.14	2832.76	65.04	431.28	262.36	799.31	54.40
19-Jun	30583.09	30658.70	36372.25	20798.00	27559.90	27573.79	30920.17	16562.72	1476.69	1519.52	2850.04	66.42	534.02	316.48	878.03	121.63
20-Jun	31303.35	31266.93	37413.35	26317.56	27459.37	27445.14	30598.14	14296.38	1196.27	1174.23	2876.22	111.75	274.37	164.36	704.23	3.39
21-Jun	31933.73	31782.99	36855.02	26357.91	28731.27	28634.44	31322.14	15124.19	1724.27	1666.64	2866.42	81.69	231.51	138.33	719.53	12.24
22-Jun	33428.97	33570.36	51088.81	148.89	28519.29	28585.51	37906.96	1635.53	1305.97	1256.55	2886.55	58.20	332.81	204.36	848.58	0.41
23-Jun	37959.35	37738.55	42226.62	33068.67	30863.97	30657.50	34222.77	17459.32	1431.26	1444.55	1986.93	611.34	506.56	301.81	874.86	240.91
24-Jun	38584.70	38603.69	42664.32	26615.81	31456.77	31481.38	34894.03	17854.02	1915.42	1908.03	1997.69	1810.10	470.73	282.01	792.14	209.75
25-Jun	39403.37	39587.87	43996.82	25083.04	32082.87	32193.82	34190.82	16065.67	2128.92	2133.18	2874.60	94.54	436.96	263.30	793.93	203.68
26-Jun	39063.17	39196.23	42316.67	36510.52	32144.20	32257.59	33980.27	17551.35	1824.57	1862.42	2857.63	95.50	445.28	268.03	836.76	238.21
27-Jun	39027.59	38754.03	42486.58	35296.56	32511.38	32301.43	34731.02	17638.52	1654.22	1596.27	2869.70	49.97	451.75	270.12	817.86	224.62
28-Jun	36899.43	37036.37	45690.87	29603.16	31573.36	31722.62	34088.02	15941.85	986.10	993.99	2869.46	61.02	473.06	287.32	895.23	97.34
29-Jun	32775.60	32747.84	42651.37	22791.51	28559.03	28490.88	30881.03	15438.89	891.09	940.09	2870.74	91.12	575.32	344.52	909.30	188.18
30-Jun	31106.99	30902.40	36812.82	21748.77	28208.13	28098.49	34447.82	14668.05	1340.79	1287.86	2886.63	76.37	578.74	345.96	887.60	259.01
1-Jul																

Monthly To Averages: 1019654.99 33932.24456 40254.73186 26317.68823 884667.99 29527.89692 32955.83629 16164.39186 48779.19 1642.3419 2916.65962 184.37165 13239.40 262.5968 799.9248 135.2694



**Monthly Summary
Vermilion WTP**

JULY 2008

Date	Plant Raw Water Flow (Fl-10)				CC Treated Water Flow (FIC 98530)				Craighton Treated Water Flow (FIC-31)				U-Drain Flow (Fl-100)			
	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total L/s	Average L/s	Peak L/s	Minimum L/s
1-Jul	32166.91	32282.37	37248.86	21389.22	28541.35	29641.62	32863.86	15784.93	1710.63	1729.88	3007.17	63.93	520.13	312.34	849.92	246.91
2-Jul	33139.00	33267.30	37382.48	25887.34	30250.34	30371.89	34633.52	14593.00	1843.12	1865.82	2869.00	201.15	494.30	296.33	818.83	227.66
3-Jul	35207.35	35204.31	36582.26	25723.56	32251.32	32254.07	36242.21	14768.82	1647.41	1602.10	2936.78	55.45	441.26	266.40	855.59	194.26
4-Jul	32139.65	32025.91	38141.23	26026.64	28251.01	29166.94	32706.18	14894.50	1604.64	1629.44	2883.14	55.05	537.59	323.00	882.66	225.82
5-Jul	31583.96	31492.63	38075.06	26720.95	28244.19	29133.71	31531.54	17958.29	878.97	856.75	2889.27	76.03	588.31	334.07	855.79	235.83
6-Jul	31344.72	31770.70	37320.33	27534.89	29021.23	29406.23	33169.42	18173.00	938.40	944.21	2824.44	51.90	536.86	324.61	882.87	226.52
7-Jul	33992.99	33780.81	37363.63	28711.13	31773.61	31570.07	35922.27	13698.25	624.21	614.03	1183.77	101.39	483.38	287.01	803.75	243.20
8-Jul	35249.10	36285.37	39259.03	29931.89	33676.15	33714.07	36774.98	17308.00	212.74	210.07	408.83	94.02	417.93	250.27	817.91	196.83
9-Jul	34686.48	34516.06	44885.10	15700.87	32373.21	32221.41	35775.31	15206.15	372.86	380.68	711.18	92.08	454.10	273.35	792.96	270.00
10-Jul	33387.33	33486.61	41148.78	27717.33	30737.54	30837.65	33004.34	16806.14	541.31	545.12	719.92	361.50	499.92	302.74	859.13	125.80
11-Jul	31686.92	31424.81	37668.29	27155.03	29349.05	29103.58	31855.72	17583.67	550.02	545.11	740.84	329.80	562.80	334.75	860.47	243.99
12-Jul	31888.30	32129.41	37413.24	27012.36	29478.89	29712.38	32107.89	18144.68	544.72	545.09	742.85	347.13	534.45	322.31	827.04	229.53
13-Jul	33438.05	33702.01	37266.76	31675.87	31710.77	31989.26	35228.92	17645.60	540.56	545.20	746.50	341.70	467.68	280.91	837.21	223.96
14-Jul	34906.79	34832.60	37557.62	19359.33	33732.18	33676.96	36206.38	19515.46	544.72	545.11	746.66	330.54	424.05	254.03	795.00	215.82
15-Jul	29159.78	28944.09	36053.50	19806.66	27772.05	27540.26	36908.42	17821.07	545.10	545.01	744.17	314.90	586.00	355.85	849.41	222.43
16-Jul	27500.25	27251.31	31581.26	17859.52	26299.14	26053.61	28355.01	20445.67	550.78	545.07	744.72	328.98	617.18	363.39	723.70	118.00
17-Jul	29395.99	29519.67	32200.14	17712.00	27839.05	27635.40	30855.97	20662.04	543.96	545.06	746.53	331.00	326.80	194.38	705.63	109.25
18-Jul	31081.25	31151.41	35015.39	23261.28	25865.95	29650.75	31622.92	15803.77	543.96	545.20	746.87	321.94	227.66	137.31	712.73	59.41
19-Jul	31060.06	31244.79	35098.42	28297.74	29392.96	29569.79	31391.35	17743.14	541.31	545.07	754.75	324.57	224.80	136.33	706.00	64.69
20-Jul	31671.78	31421.57	36880.93	23420.19	29276.45	29483.22	31266.34	15753.42	550.02	544.98	747.65	320.74	229.21	135.86	702.43	52.53
21-Jul	31150.91	31083.57	34909.63	24610.07	29210.88	29123.28	31553.34	16120.34	631.79	672.45	2861.76	48.47	242.30	145.97	734.56	67.52
22-Jul	30253.01	30264.18	34378.51	22283.52	27918.16	27959.91	30719.16	16715.45	198.71	1370.64	2883.78	43.02	281.33	169.28	665.80	54.63
23-Jul	29859.92	30014.83	36793.98	25158.58	28022.64	28135.92	30068.80	20649.82	1727.28	1750.12	2890.42	51.72	286.06	159.59	633.75	0.70
24-Jul	28651.02	28573.31	37178.35	25505.23	26033.41	25960.70	29607.19	23756.68	1630.38	1619.60	2869.33	51.24	361.39	218.01	638.46	0.57
25-Jul	29857.81	29933.00	36450.42	27312.52	27490.03	27567.43	30169.65	17887.30	1708.73	1703.87	2889.17	44.84	287.02	171.93	727.31	11.71
26-Jul	30670.91	30551.68	34964.08	29082.70	28722.56	28615.31	31147.73	17650.58	1092.85	1086.32	2879.12	55.20	294.52	151.18	706.85	45.77
27-Jul	30879.11	30912.77	33679.08	29525.55	29380.09	29404.18	31453.73	17637.46	1047.04	1067.33	2867.86	44.74	211.40	124.16	691.32	66.22
28-Jul	30511.17	30629.43	38616.70	25882.16	28757.01	28874.73	32447.84	14667.88	1576.25	1570.71	2881.18	55.63	503.63	310.02	920.30	86.74
29-Jul	31317.46	31267.02	37333.27	28416.00	28975.05	28915.76	31699.39	17234.18	2064.18	2059.79	2866.62	268.85	509.92	305.59	844.05	179.90
30-Jul	30383.98	30564.57	36540.16	24988.15	27850.41	28004.96	31533.71	16446.67	1734.48	1779.76	2901.51	49.14	537.63	325.07	890.97	227.71
31-Jul	30482.40	30561.12	36442.64	25894.46	27936.71	28046.26	31050.33	16975.18	1662.55	1624.04	2880.55	54.89	539.21	325.85	874.85	234.26
1-AUG																

Monthly To Averages: 979714.36 31615.77923 36671.26225 25469.95948 913283.42 29472.49314 32618.59813 17292.00974 32103.69 1036.56237 1921.4759 168.1016 13138.85 254.5772 789.3626 143.2566



Monthly Summary
Vermilion WTP

AUGUST 2008		Plant Raw Water Flow (FI-10)		CC-Treated Water Flow (FI-95530)		Crighton Treated Water Flow (FI-3-1)		U-Drain Flow (FI-100)		Minimum		Peak				
Min Day	23,860.20	23,083.91	34,521.48	-193.56	22,184.40	21,410.21	30,358.31	-506.57	1,414.99	1,381.22	2,818.51	-64.30	226.82	141.86	555.86	0.04
Max Day	40,191.98	40,379.38	50,968.01	36,854.73	36,919.11	35,557.23	41,784.69	23,387.01	2,931.04	2,927.74	6,830.41	2,243.87	554.53	333.33	909.52	280.92
Date	Total	Average	Peak	Minimum	Total	Average	Peak	Minimum	Total	Average	Peak	Minimum	Total	Average	Peak	Minimum
	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	m ³ /d	L/s	L/s	L/s	L/s
1-Aug	29913.83	29830.21	34521.48	25383.36	27814.07	27814.07	30358.31	16480.76	1722.74	1757.67	2887.75	43.78	550.35	328.65	847.65	280.92
2-Aug	29603.43	29562.12	34606.61	23360.24	27985.60	27985.60	31072.36	17416.22	1414.99	1381.22	2885.54	76.84	554.53	333.33	879.04	265.15
3-Aug	30757.22	30845.57	36372.32	28592.51	29040.17	29040.17	31932.89	16859.09	1788.23	1784.05	2896.20	61.21	512.02	306.60	878.68	192.68
4-Aug	32518.20	32230.95	39389.45	23904.21	31326.29	31326.29	36422.29	15078.17	1636.05	1629.53	2869.26	64.48	475.41	282.12	833.16	132.56
5-Aug	23860.20	23083.91	41867.20	32064.37	22184.40	21410.21	35064.30	3163.57	1851.44	1812.74	6510.42	1597.89	330.81	282.12	555.86	0.04
6-Aug	37761.75	38776.66	50968.01	32064.37	32804.75	33710.06	37701.83	22493.14	2331.43	2405.07	2983.71	514.56	416.53	250.88	839.81	197.77
7-Aug	40191.98	40379.38	43194.20	36854.73	35386.40	35537.23	39018.22	15910.82	2567.64	2578.54	2988.32	80.41	430.24	259.31	803.07	44.77
8-Aug	40034.51	39865.15	49203.26	24682.82	35291.01	35139.36	37853.20	15064.87	2276.55	2272.86	2863.53	514.56	416.53	250.88	839.81	197.77
9-Aug	33912.74	33615.62	41495.78	22420.59	29926.70	29871.26	33908.03	12752.06	1623.43	1769.62	2857.13	56.12	503.59	300.90	792.89	17.46
10-Aug	32577.25	32574.55	42444.44	27077.51	28627.93	28609.24	30816.63	13201.54	1447.54	1478.03	2849.75	70.56	374.07	224.10	797.48	10.61
11-Aug	33192.00	33181.14	42151.37	29563.75	28943.63	28921.06	31981.52	23025.04	2160.71	2183.11	2848.33	93.46	338.82	202.62	664.67	0.12
12-Aug	34318.54	34310.74	42252.00	30008.52	30016.04	30019.28	33585.55	22788.08	2395.03	2390.91	2851.31	227.85	285.59	169.83	643.64	0.32
13-Aug	34668.31	34726.91	43123.65	291.09	29964.18	29983.27	41784.69	16197.27	2325.76	2328.11	6830.41	227.85	236.23	141.86	629.40	0.09
14-Aug	36247.20	36263.63	40859.07	33922.95	30584.64	30545.95	34036.68	16197.27	2488.53	2477.70	2930.22	78.54	241.47	145.31	748.92	54.73
15-Aug	36112.82	36139.90	42612.92	32289.33	36919.11	30128.14	32802.36	13079.66	2653.57	2666.14	3005.20	1056.17	255.35	153.00	732.98	13.48
16-Aug	35885.70	35873.09	43034.71	33434.04	35833.11	30410.41	33452.72	13403.30	2422.66	2400.28	2834.87	53.65	248.51	148.99	711.04	1.59
17-Aug	35786.90	35831.15	41775.75	31591.49	30495.27	30510.43	33632.92	13977.84	2278.82	2297.33	2841.46	262.76	244.39	146.00	729.48	21.84
18-Aug	37468.76	37283.21	44229.68	29620.28	31542.32	31852.36	35841.41	18377.56	2458.97	2459.84	3355.52	57.00	364.87	225.94	830.39	104.96
19-Aug	39213.07	39527.89	44328.28	32127.82	32785.45	33097.80	38558.99	17384.27	2468.09	2473.84	3000.47	494.01	456.62	270.56	797.44	161.66
20-Aug	39247.90	39073.06	45783.30	32127.82	32289.94	32154.91	36821.51	14620.25	2469.60	2441.07	2818.51	669.75	476.84	287.29	856.08	142.71
21-Aug	37430.14	37503.06	47050.12	33862.80	30388.90	30388.90	33390.12	14300.25	2757.67	2798.95	3640.04	454.71	515.96	310.34	875.63	134.89
22-Aug	36127.96	35725.96	44685.82	32338.09	29987.21	29664.48	342150.00	18177.62	2590.36	2548.83	3432.94	54.42	550.72	327.64	909.52	157.36
23-Aug	32361.92	32652.83	45393.09	36575.31	33981.64	33996.40	36443.04	3727.63	2145.95	2136.03	2822.39	56.68	509.83	306.55	776.74	1.73
24-Aug	39413.70	39443.57	45600.16	36575.31	33981.64	33996.40	35924.18	20178.42	2035.42	2060.91	2827.18	256.21	418.94	251.20	786.84	100.76
25-Aug	36850.22	36781.38	44750.61	28332.05	31314.43	31266.59	36021.75	17011.42	2760.70	2742.81	3404.53	57.47	485.60	293.87	853.72	133.21
26-Aug	36155.22	36289.09	41042.09	31125.93	30913.18	31005.02	33986.03	15308.80	2611.18	2651.14	3406.06	76.41	505.68	302.99	884.36	233.25
27-Aug	36582.21	36610.54	41805.25	33469.45	31181.95	31197.55	34698.96	16925.34	2641.46	2642.65	3368.31	131.43	485.48	297.47	867.39	222.03
28-Aug	37081.89	37000.49	47359.94	30033.44	31404.91	31333.01	33579.99	12443.81	2928.02	2927.74	3679.68	48.14	469.14	280.99	844.91	1.92
29-Aug	38293.22	38183.13	45486.07	35420.94	32351.26	32267.46	35079.95	22765.87	2931.04	2914.57	3681.02	363.07	451.97	270.23	728.60	84.93
30-Aug	38032.78	38029.58	46315.51	31184.56	32333.85	32336.39	34811.49	23387.01	2908.71	2898.21	3430.89	2243.87	448.83	269.49	729.48	87.19
31-Aug	34601.69	34581.11	44532.49	29822.12	29729.10	29707.98	34051.09	23091.24	2428.34	2445.24	3390.84	2054.00	530.82	320.41	722.63	99.00

Monthly To Averages: 1056223.26 35354.07492 43162.40757 27201.51786 948121.32 30574.2675 34734.93534 15489.90936 71171.64 2314.50857 3320.3795 363.353763 12906.06 249.7782 782.7163 82.57936



Monthly Summary
Vermilion WTP

Sept 2008

Date	Plant Raw Water Flow (FI-10)			CC Treated Water Flow (FIC 96530)			Craighton Treated Water Flow (FIC-31)			U-Drain Flow (FI-100)		
	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d
1-Sep	34645.60	34904.41	42594.82	29395.61	29606.78	32834.58	2482.47	2485.11	3383.28	537.32	323.63	910.57
2-Sep	36268.78	36213.48	41565.60	30143.99	30085.95	32953.22	15907.41	15907.41	3676.89	515.21	308.42	891.54
3-Sep	36907.76	36816.96	49313.99	31094.63	31018.84	34008.92	2753.51	2742.27	3756.43	490.09	294.80	725.81
4-Sep	32119.97	31993.19	48161.45	25226.74	25091.84	36121.75	3355.33	3327.19	5420.71	399.44	235.27	684.45
5-Sep	32407.66	32732.87	43500.24	24668.01	24942.50	31437.73	3421.25	3463.19	3962.31	557.74	378.44	937.56
6-Sep	32838.44	33103.24	43952.66	25293.36	25518.21	31870.84	3045.74	3048.33	4098.64	633.71	376.44	888.31
7-Sep	37636.83	37588.66	43362.54	30417.29	30405.13	33498.23	3209.27	3198.27	3829.09	496.45	296.15	864.32
8-Sep	39719.56	39658.45	44804.43	31279.99	31154.34	36786.28	17182.60	17182.60	4648.89	453.36	270.92	838.42
9-Sep	40959.66	40910.14	45165.65	31427.62	31408.65	33979.66	16874.97	16874.97	4385.21	438.22	258.93	805.91
10-Sep	41392.71	41009.00	46669.35	33924.45	31465.52	34155.87	3972.03	3936.57	4488.98	434.30	261.71	842.63
11-Sep	40565.98	40710.69	47244.58	31150.91	31273.03	33544.02	20718.58	20718.58	4504.15	2803.82	285.24	860.95
12-Sep	40016.34	39947.66	45164.07	30156.48	30004.80	33549.66	18115.76	18115.76	4233.59	3073.46	292.88	847.77
13-Sep	39934.57	39997.25	44590.78	29660.21	29707.58	33287.84	3523.08	3518.40	4176.13	2962.69	487.90	292.88
14-Sep	37534.62	37479.25	42749.76	30042.54	30113.90	32900.74	1821.92	1786.37	4761.20	520.79	313.51	866.33
15-Sep	35847.84	35969.53	44299.88	30013.01	30092.17	35943.26	1849.17	1865.98	2867.40	527.43	318.07	850.34
16-Sep	35867.53	35804.84	45173.19	30225.75	30157.20	32617.17	17695.51	17695.51	2062.07	522.99	312.50	882.22
17-Sep	26033.03	26158.91	47434.48	19625.84	19722.09	43350.86	1897.25	1893.75	2869.69	362.37	217.38	607.17
18-Sep	38650.56	38618.44	45829.45	32502.30	32498.05	38209.05	2106.58	2101.84	2856.59	442.42	266.17	746.28
19-Sep	37139.43	37015.94	41290.82	30424.86	30282.41	33984.74	1645.86	1645.86	2892.85	508.30	305.58	901.62
20-Sep	33323.73	33325.27	38313.15	26906.97	26905.49	30629.36	1651.95	1650.10	2883.01	493.21	294.30	748.55
21-Sep	30321.14	30258.46	43151.71	24242.53	24186.43	28061.35	1333.60	1334.76	2877.23	437.57	262.71	634.33
22-Sep	32351.64	32481.91	43155.02	28558.90	25985.83	29237.99	1742.05	1743.74	2873.99	376.92	225.86	771.95
23-Sep	33631.11	33608.83	38665.32	27005.88	26990.31	28616.73	15587.82	15587.82	2998.73	341.36	205.56	737.99
24-Sep	34874.24	34931.42	42768.41	28024.91	28043.37	30624.28	17847.95	17847.95	3337.40	440.60	164.81	718.89
25-Sep	35054.42	35004.79	43579.97	28099.11	28042.66	30876.47	1856.37	1847.27	2861.38	284.35	170.63	713.11
26-Sep	34675.88	34912.78	39976.77	30925.28	27643.34	30306.85	18053.05	1709.90	2841.95	291.63	176.98	660.16
27-Sep	32457.63	32261.17	41742.51	25662.82	25460.11	28646.36	916.83	945.23	2886.88	22.38	388.38	233.12
28-Sep	31646.04	31639.99	40028.23	27857.85	24747.50	27989.15	17066.26	883.51	2875.14	317.99	242.57	706.23
29-Sep	33128.40	32806.75	47801.00	25811.96	25578.08	31049.45	14896.43	1687.41	2873.19	58.68	227.85	688.95
30-Sep	32500.03	32741.85	39355.22	28402.21	26705.50	29945.99	1790.12	1813.02	2865.84	351.16	210.93	687.49
1-Oct												

Monthly To Averages: 1060451.12 35350.17171 43713.83451 26686.59843 845049.12 28169.01025 32767.28114 15692.32518 73356.35 2444.46224 3528.1898 912.81436 13265.14 265.3899 786.4503 116.9497



Monthly Summary
Vermilion WTP

October 2008		Plant Raw Water Flow (FI-10)		CC Treated Water Flow (FI-38530)		Creighton Treated Water Flow (FI-31)		U-Drain Flow (FI-100)									
Date	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Minimum m ³ /d	Total L/s	Average L/s	Peak L/s	Minimum L/s					
1-Oct	31730.83	31579.10	36804.23	-432.80	1,187.86	1,027.88	11,487.50	-20,375.04	518.60	517.48	2,843.73	-24.81	253.82	151.26	627.77	0.00	
2-Oct	29096.18	28,853.22	37,280.16	53,316.68	32,958.77	40,011.04	40,392.88	85,891.51	2,970.62	2,075.15	6,712.71	195.92	613.23	368.15	889.42	233.58	
3-Oct	31922.78	32,449.94	42,995.73	26,517.15	2,868.94	2,630.52	26,305.24	1,438.84	1,548.61	1,566.62	2,854.77	150.73	356.38	214.82	730.51	0.00	
4-Oct	31626.35	31,576.99	42,176.83	25,413.93	2,620.91	2,624.99	38,713.56	1,570.51	1,282.50	1,261.03	4,820.47	23.81	332.45	200.09	742.75	0.00	
5-Oct	32428.86	32,384.86	40,820.38	26,642.78	2,812.30	2,807.92	31,672.20	1,250.28	1,138.65	1,160.54	2,851.91	52.08	323.37	195.59	769.79	3.49	
6-Oct	31434.05	31,341.19	41,440.79	28,184.02	2,670.78	2,658.44	28,895.45	2,184.57	1,374.10	1,396.28	2,857.41	48.73	373.68	222.25	627.77	0.21	
7-Oct	32386.46	32,457.25	41,667.22	29,203.21	2,665.14	2,669.53	29,972.23	2,131.86	1,571.70	1,576.91	2,868.52	85.49	360.01	216.65	628.29	0.00	
8-Oct	33046.64	33,157.94	44,091.48	28,456.84	2,136.78	2,193.38	29,303.58	2,373.04	1,760.22	1,740.27	2,887.50	47.38	362.78	218.77	771.65	0.00	
9-Oct	34760.67	34,984.72	45,172.82	31,720.41	1,772.51	1,783.64	79,428.65	9,428.70	1,799.96	1,799.45	2,843.73	98.52	346.90	205.17	733.25	63.98	
10-Oct	34401.82	34,608.99	42,669.84	23,120.30	1,620.86	1,630.50	1,861.78	817.82	1,320.35	1,300.60	2,871.82	42.55	319.06	194.79	747.51	0.00	
11-Oct	34336.71	34,104.11	41,076.00	31,990.01	1,707.32	1,707.32	2,079.62	969.29	1,246.91	1,241.43	2,882.73	42.41	378.96	228.73	651.76	39.28	
12-Oct	34533.55	34,643.67	42,038.16	31,984.15	1,853.81	1,864.04	2,148.09	1,1594.56	1,473.66	1,479.33	2,867.43	56.27	253.82	151.26	707.79	32.72	
13-Oct	36140.08	36,097.38	48,507.98	16,409.24	1,962.06	1,968.08	2,282.59	1,0754.58	1,584.57	1,602.22	2,862.67	36.88	417.72	254.50	842.59	34.57	
14-Oct	36203.67	36,261.68	48,558.89	29,981.37	1,859.94	1,855.19	2,219.52	936.09	1,821.16	1,847.83	2,864.07	51.88	470.22	285.62	869.57	233.58	
15-Oct	33155.66	33,202.69	42,812.25	22,889.92	1,611.43	1,617.85	1,971.83	936.09	1,497.89	1,509.05	2,886.97	46.92	585.29	351.07	827.96	217.76	
16-Oct	37371.09	37,280.16	45,195.28	23,895.38	2,885.82	2,848.45	4,101.51	1,615.16	1,249.56	1,231.23	2,872.07	60.69	557.64	331.73	817.07	161.95	
17-Oct	32801.34	32,701.32	44,491.67	24,800.80	1,271.14	1,339.67	8,452.10	1,039.70	1,250.32	1,203.37	2,894.94	44.52	508.55	305.06	785.24	156.60	
18-Oct	35137.70	35,203.23	43,114.18	32,958.77	1,187.86	1,191.88	11,487.50	-1,267.71	1,585.71	1,624.74	2,870.07	53.57	533.16	319.12	839.12	193.37	
19-Oct	36111.31	36,224.98	48,590.03	30,329.58	1,970.58	2,038.55	8,588.74	-1,265.95	1,611.83	1,624.02	2,881.36	44.40	494.18	297.92	816.08	160.27	
20-Oct	33196.54	33,364.36	42,722.18	27,794.81	2,687.88	2,648.45	4,057.96	-1,368.92	1,703.81	1,702.82	2,854.36	37.27	582.07	350.71	886.58	194.28	
21-Oct	30649.72	30,533.96	39,592.68	19,972.87	2,688.50	2,669.53	3,983.78	-457.83	1,382.05	1,326.57	2,894.78	35.82	568.25	338.95	761.49	93.85	
22-Oct	30891.98	30,809.06	43,573.83	28,512.42	3,497.96	3,497.96	3,811.42	2,952.29	909.63	902.57	2,865.62	58.22	500.29	299.21	697.72	53.58	
23-Oct	33104.18	33,202.36	45,402.63	30,235.82	9,274.49	9,274.49	3,686.03	-1,693.25	1,668.99	1,666.80	2,886.19	87.53	422.51	254.97	803.90	169.65	
24-Oct	35705.51	35,607.70	46,160.20	29,659.61	2,353.16	2,433.74	4,124.88	-438.14	1,668.99	1,668.99	1,666.80	117.29	443.22	265.02	786.84	33.90	
25-Oct	36492.88	36,778.01	53,100.43	10,516.51	4,001.04	4,032.88	4,508.70	23,703.08	1,668.99	1,668.99	1,666.80	87.53	422.51	254.97	803.90	169.65	
26-Oct	34675.88	34,574.26	53,166.68	10,008.80	3,0654.26	2,947.65	4,314.49	-1,693.25	1,972.96	1,974.19	2,867.87	60.00	485.87	292.34	889.42	208.05	
27-Oct	34545.66	34,552.58	48,640.12	29,360.25	3,348.75	3,437.09	8,280.53	-1,467.72	1,960.09	1,998.06	2,877.91	55.71	492.82	298.25	850.48	1.72	
28-Oct	34594.87	34,538.82	49,217.43	28,932.76	3,380.72	3,310.88	8,581.51	-1,468.38	2,070.62	2,075.15	2,850.86	46.59	499.75	296.65	861.62	0.00	
29-Oct	36208.97	36,448.09	45,427.99	28,516.80	3,4123.97	3,389.83	8,584.49	-1,468.38	1,951.38	1,950.62	2,873.77	31.26	459.84	278.86	747.58	163.26	
30-Oct																	
31-Oct																	
1-Nov																	

Monthly Totals: 10,496,14.25 33,869,04.543 44,098,097.29 23,911,351.9 70,486.96 2,271,281.26 4,080,416.91 5,873,565.415 45,424.18 1,466,554.4 3,060,447.31 58,640.9 13,691.51 265,290.7 773,698.2 85,091.7

Averages: 338.69 338.69 440.98 239.14 704.87 2271.28 4080.42 5873.57 454.24 1466.55 3060.45 58.64 1369.15 265.29 773.698 85.0917



Monthly Summary
Vermilion WTP

November 2008														
Date	Plant Raw Water Flow (FI-10)			CC Treated Water Flow (FI-98530)			Greighton Treated Water Flow (FI-C-31)			U-Drain Flow (FI-100)			Minimum L/s	
	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d		L/s
1-Nov	34964.33	34323.81	45806.33	27434.39	27955.35	37147.42	1285.53	1214.92	2877.51	43.72	550.78	326.04	849.36	138.16
2-Nov	34305.91	34265.36	45265.36	32737.75	31827.74	36694.07	1213.22	1165.93	2888.34	56.32	579.85	339.76	867.10	155.62
3-Nov	36532.25	36268.98	59509.15	32504.57	31656.53	39534.77	1610.31	1609.16	2865.30	61.74	473.57	285.73	815.19	171.98
4-Nov	31783.83	31825.80	65354.73	14084.76	14587.66	37220.14	1859.39	1850.97	2867.65	133.98	596.54	357.61	811.81	159.05
5-Nov	26697.75	26595.89	39275.65	21062.03	21268.07	41386.54	1856.37	1820.85	2885.54	48.38	615.99	367.83	805.82	259.26
6-Nov	33546.31	33238.00	49098.91	30278.75	30020.55	74214.56	1775.74	1759.97	2876.50	49.05	614.28	366.09	876.35	102.93
7-Nov	33667.45	34038.70	43224.83	21123.35	20584.03	71082.53	1715.93	1741.68	2879.83	54.84	558.09	338.17	878.84	224.25
8-Nov	32969.42	32815.62	43288.66	6819.04	6821.61	44322.00	1659.52	1643.77	2864.72	50.90	568.81	353.32	873.20	235.99
9-Nov	29962.29	30000.90	40370.64	2253.83	2282.95	29283.07	1295.75	1279.65	2888.10	43.14	653.79	394.23	900.69	256.38
10-Nov	30484.67	30724.53	44503.61	21825.17	22717.74	35304.91	1694.73	1760.90	2871.98	146.52	642.95	387.22	915.30	195.95
11-Nov	33416.10	33423.51	44247.36	22196.89	21355.43	37710.81	712.04	648.37	2879.53	52.82	415.71	244.72	738.80	4.36
12-Nov	33535.65	33505.22	42322.89	6841.75	6780.90	35215.38	1829.49	1878.49	2856.77	241.40	345.89	206.49	770.18	25.13
13-Nov	34701.62	34751.73	45587.63	287.69	284.27	21921.64	1693.21	1662.13	2883.24	50.08	330.46	197.62	774.15	9.33
14-Nov	36268.78	36373.75	44720.65	4830.94	4830.68	85883.50	1668.83	1868.22	2868.62	55.94	291.47	176.20	750.95	30.12
15-Nov	34728.88	34633.62	43934.88	27266.59	27266.59	14729.03	1606.15	1584.44	2880.21	51.25	345.51	207.67	699.58	41.75
16-Nov	32554.54	32511.65	43510.99	7716.18	7717.24	29498.47	1217.77	1268.72	2874.93	52.07	391.99	235.14	746.35	36.61
17-Nov	25362.25	25376.41	45565.76	3097.22	3169.75	31817.48	1966.14	1989.53	2884.77	52.79	241.05	144.86	622.64	0.00
18-Nov	37910.14	38098.60	45866.04	5170.11	5124.00	31396.07	2389.35	2360.49	2887.91	74.74	263.22	157.91	719.01	0.00
19-Nov	38456.75	38303.25	45511.67	16294.68	16740.93	32144.04	2078.19	2080.39	2841.12	64.41	251.56	149.06	739.16	0.00
20-Nov	38270.51	38216.04	45365.83	33574.91	21148.33	41163.09	1688.67	1686.86	2873.98	48.21	253.26	152.89	724.11	0.00
21-Nov	33579.62	33463.11	41129.44	2904.82	25989.13	36581.67	2027.09	2001.18	2887.90	47.59	416.48	252.11	831.87	86.70
22-Nov	31387.11	31549.20	42578.50	28505.95	24305.37	32439.00	1633.40	1636.06	2871.73	43.12	461.62	278.76	786.74	53.69
23-Nov	32778.63	32975.84	43572.42	24836.84	2601.46	85894.78	1417.64	1461.49	2872.53	67.81	429.51	255.48	761.23	32.51
24-Nov	37940.42	37784.15	45259.89	60986.00	59570.85	85895.48	1868.10	1827.33	2865.57	53.21	266.61	158.43	661.13	0.00
25-Nov	37454.37	36924.79	45125.86	37549.76	36897.08	84121.30	2158.82	2135.34	2879.73	88.43	315.05	187.12	674.29	0.00
26-Nov	36510.18	35837.43	45115.08	34883.92	35135.15	39540.45	1865.83	1909.25	2838.81	366.78	343.35	209.67	699.87	0.00
27-Nov	33694.70	33502.09	41451.80	28520.80	28295.22	34667.83	2389.73	2353.84	2853.78	63.67	416.56	247.87	750.34	74.65
28-Nov	33891.48	34411.32	43956.49	26545.57	26866.94	36846.89	2087.28	2138.83	2865.37	55.18	382.59	232.66	810.01	33.45
29-Nov	34895.03	34675.63	45387.50	26556.93	26634.20	29843.23	1669.74	1631.05	2866.21	55.04	375.32	225.03	776.58	0.00
30-Nov	35611.63	35584.20	44865.20	27274.64	27236.48	30225.06	1605.39	1612.61	2874.90	128.83	356.56	213.89	767.18	4.04

Monthly Totals: 1016832.59 33838.11949 45374.4585 20481.51906 43477.54017 5415.401203 51736.35 1719.41397 2872.50239 80.15824 12768.41 254.9857 773.2606 77.73982

Averages: 1016832.59 33838.11949 45374.4585 20481.51906 43477.54017 5415.401203 51736.35 1719.41397 2872.50239 80.15824 12768.41 254.9857 773.2606 77.73982



Monthly Summary
Vermilion WTP

December, 2008

Date	Plant Raw Water Flow (FI-10)			CC Treated Water Flow (FI-98530)			Creighton Treated Water Flow (FI-31)			U-Drain Flow (FI-100)			
	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total m ³ /d	Average m ³ /d	Peak m ³ /d	Total L/s	Average L/s	Peak L/s	Minimum L/s
1-Dec	30833.69	35814.33	45131.64	28030.97	27988.71	37826.36	1858.45	2118.79	2878.84	404.15	205.82	618.91	0.00
2-Dec	39246.39	37159.10	45372.24	30248.46	34622.46	57887.31	1596.62	2352.43	2697.14	387.96	169.38	614.25	0.00
3-Dec	35464.00	36791.90	42949.23	26115.55	34662.23	41087.46	1718.58	2401.21	2859.27	382.65	176.23	697.83	44.27
4-Dec	33349.47	34565.07	45208.02	24225.87	33775.12	38331.20	1795.04	2291.59	2845.58	430.43	229.50	638.38	0.00
5-Dec	36028.03	36737.37	48379.73	31844.36	33507.63	38755.15	1747.72	2144.99	2857.60	376.03	219.67	800.86	0.00
6-Dec	37053.88	35951.88	46284.07	28045.35	31642.86	34625.52	2753.11	1658.39	2249.51	313.58	219.61	745.63	0.00
7-Dec	38891.31	35322.07	48649.13	29672.39	29414.64	34129.38	1816.62	1684.90	2856.32	270.74	223.49	772.10	0.00
8-Dec	35875.86	36157.53	47592.20	26933.20	28664.11	41639.08	1866.84	2329.13	2844.99	357.00	224.80	746.94	13.48
9-Dec	32989.86	35278.29	45412.30	24300.07	32683.08	40932.28	1321.87	2294.61	2918.24	510.39	441.67	229.82	805.97
10-Dec	35200.54	32521.29	49610.61	25627.99	24641.18	27865.73	1662.17	2550.23	2900.40	349.84	388.87	249.96	759.35
11-Dec	40070.85	34431.17	49633.72	29719.26	30671.83	37823.53	1823.43	2106.47	2847.53	230.90	244.47	832.32	0.00
12-Dec	39729.40	34827.08	43706.76	28924.33	32321.68	38837.98	1813.59	2234.11	2850.40	244.92	207.32	744.84	0.00
13-Dec	37726.16	34500.38	42504.27	26482.74	32760.56	40434.86	1876.81	1854.30	2853.03	118.03	118.03	196.11	754.75
14-Dec	35760.02	33918.57	42149.35	24643.03	33709.52	38897.46	1796.56	1612.00	2858.61	69.23	402.57	200.19	729.24
15-Dec	35407.22	31282.43	40082.71	23855.66	19662.41	40434.86	1657.53	2214.42	2846.45	136.73	424.60	233.37	793.18
16-Dec	35016.57	30709.89	38998.61	22678.40	30865.65	348.98	1890.43	2298.40	3318.60	173.96	459.90	242.06	747.47
17-Dec	38365.90	30914.64	43637.85	25530.33	348.98	26070.61	1872.64	2355.18	3434.13	180.12	390.83	238.54	787.64
18-Dec	40541.00	33092.20	41507.53	27542.65	8613.33	44336.10	2164.88	2267.60	2835.18	317.49	206.78	773.83	38.61
19-Dec	41128.49	34170.41	48906.22	27756.15	23229.35	33362.18	2161.85	2220.84	2847.25	305.13	217.83	614.40	0.00
20-Dec	40287.37	39457.83	49286.61	26559.60	31372.43	52317.57	1746.97	1806.02	2631.88	367.82	349.05	195.47	617.27
21-Dec	38390.13	39384.74	49082.83	24859.77	69351.79	85898.60	1746.97	2167.70	2822.02	284.76	396.54	198.01	607.34
22-Dec	39291.81	39238.79	49282.78	25767.29	50652.23	85898.98	1538.01	3458.69	5113.50	380.84	203.95	618.95	0.00
23-Dec	40431.22	39376.92	49182.54	26960.45	17308.88	31162.39	1359.72	3696.15	4773.23	366.77	200.97	623.49	0.00
24-Dec	40914.99	39099.12	49364.44	27535.08	29567.89	38514.99	1279.09	1310.29	7113.89	341.71	205.17	721.69	0.52
25-Dec	39149.48	36955.32	48030.26	25717.33	28153.90	34482.56	1227.23	1415.45	2852.79	400.72	252.01	806.26	22.30
26-Dec	39388.72	33412.10	47759.56	25876.19	26118.56	33986.20	1138.65	1130.09	2849.43	397.90	288.82	788.58	30.03
27-Dec	39918.67	20754.73	41906.01	25612.09	15044.71	35391.85	1713.28	1115.40	2868.93	375.51	362.42	686.47	13.72
28-Dec	40956.63	42836.32	49179.39	25783.19	36018.32	41863.60	2114.53	830.69	2900.36	284.24	355.94	868.97	0.13
29-Dec	39020.02	44301.75	50751.19	24253.89	36631.61	39743.92	1992.64	1776.18	2863.88	397.69	262.12	830.95	148.58
30-Dec	39219.13	42669.81	47687.75	24140.32	35539.48	38821.33	2100.90	1600.58	2839.07	395.96	205.77	720.26	7.21
31-Dec	40334.31	40753.76	49431.28	24246.32	33881.79	36192.92	2666.82	1492.94	2884.17	51.65	168.38	731.20	0.00

Monthly To 1175981.11
Averages: 35851.08922 46342.28514 25458.93709 814109.44 29753.573 44597.19568 14535.25996 54371.00 2044.6225 3164.8783 225.96371 11414.38 224.5893 728.946 17.12148