TRUDELL CONSULTING ENGINEERS (TCE)

tel: 802-879-6331
fax: 802-879-0060
www.trudellconsulting.com

June 9, 2011

Edward & Jean Melby
Kathryn Mundie
Marian Abbott
c/o Jean Melby
P.O. Box 286
Charlotte, VT 05445

RE: Construction Certification

Dear Camp Owners:

This letter is in response to Condition # 11 of the Water Supply and Wastewater Disposal Permit # WW-138-1016 issued on September 14, 2010. We observed construction of the disposal system serving this project, on June 9, 2011 using a reasonable standard of care customary for this scope of work.

Listed below is a brief summary of our findings:

1. The contractor is Jeff Small.
2. We met on the site to stakeout the work and discuss the plans on 10/10/10.
3. The Cromaglass 500 wastewater treatment system was installed according to the plans, is properly vented and has access risers at both ends.
4. The control panel is mounted in the camp crawl space where the alarm can easily be heard.
5. The 2-inch PVC SDR 26 near the Cromaglass tank was insulated with rigid insulation. The installation from the tank to the mound system has sufficient bury depth
6. The mound surface was plowed prior to sand fill being brought in.
7. The mound sand, from Hinesburg Sand & Gravel, met the grain size distribution curve.
8. The screened and washed stone, from Hinesburg Sand & Gravel, used in the absorption bed, was found to be very clean.
9. Prior to the distribution piping being covered, the pump was activated to observe distribution in the disposal field. The orifice spacing was 6 feet on center with 5/16 inch holes. Distribution was observed to be equal with 50 inches of spray from each orifice.
10. Flushing valves were installed at the lateral ends.
11. The manifold was insulated with Styrofoam board.
12. One layer on Mirafi Filter Fabric covers the entire absorption bed.
13. The monitoring tube was installed according to plans.
14. The seasonal potable water service is as shown on the plan.
15. Stone retaining walls are used for difficult grading.
16. The entire site will be graded for surface drainage, seeded & mulched.

The following are notes and recommendations that should be followed by the homeowner to aid in the proper operation and longevity of the disposal system.

1. The owner is responsible for operating the disposal system in a manner which will protect the public health and prevent pollution.

2. New disposal systems require adjustments or modification during start up and during the life of the system. These adjustments include leveling the tank due to settlement or frost action. Fill may be added to repair erosion or level settled areas.
3. The life of the disposal system can be affected by a variety of operational and environmental factors. The presence of excess groundwater, rainwater, introduction of material other than human wastes, or excessive sewage flows will adversely affect operation of any disposal system. Soil settlement, freezing of components and clogging due to organic solids accumulation will require repairs.
4. The owner is responsible for compliance with state and local operation and maintenance requirements. The engineer and contractor assume no responsibility for the improper use and/or maintenance of the system.
5. The owner is responsible for all state and local permits and required conditions of said permit. This includes but is not limited to annual inspections and reporting. The owner is also responsible for recording permits in the town land records office.
6. If the system is designed using the performance based design according to previous state permits the system shall be inspected each spring for three consecutive years by a licensed engineer to demonstrate that the system is working as designed.
7. Please see attached Cromaglass approval letter.

Based on the above observations, this letter can serve as confirmation that the system was installed in general conformance with the approved plans. This does not relieve the contractor of minor adjustments that may be needed during the initial startup of the system, nor does it relieve the owner of proper use and maintenance. This letter is not intended to imply any type of warranty or guarantee from the engineer since both the use and maintenance are beyond our control. However, given the good workmanship of Jeff Small, we are not anticipating any problems.

Very truly yours,

TRUDELL CONSULTING ENGINEERS (TCE)

Doug Bicknell

Certification Statement:

I, John P. Pitrowiski, P.E., herby certify that the design-related information is true and correct and that, in the exercise of my reasonable professional judgment, the design of the potable water supply and wastewater system meets the technical standards of the Rules.

"I hereby certify that in the exercise of my reasonable professional judgment, the installation-related information submitted is true and correct and that the wastewater system was installed in accordance with the permitted design and all permit conditions, was inspected, was properly tested, and successfully met those performance tests."

John P. Pitrowiski, P.E.

STATE OF VERMONT
JOHN P. PITROWISKI, P.E.
8104
CIVIL
LICENSED
PROFESSIONAL ENGINEER

Encl.

cc. Town of Charlotte
Jeff Small
2010056c01.doc