



## **PORTAGE FACILITY - GREEN TIER ANNUAL REPORT FOR 2013-2014**

### **Introduction**

The Unimin Corporation – Portage Facility is a non-metallic mining operation producing high-quality silica sand to the glass, foundry and hydraulic fracturing industries, to name a few. Mining operations at the site first began in the early twentieth century under different ownership. Unimin purchased the facility in 1983 from Martin Marietta and has been in continuous operation since that time. Unimin is proud to be a leader in the industry and has always placed value in being a responsible company, an excellent environmental steward and pillar of the communities in which we operate.

Prior to making application to the Wisconsin Green Tier Program in July of 2012, Unimin has been an active member of the Wildlife Habitat Council (WHC), a nonprofit organization that encourages its members to exceed what is expected or required, and to establish programs to take advantage of available resources, as well as partner with local conservation groups and state and local agencies.

### **Green Tier Certification**

The Portage facility achieved Green Tier status in January of 2013 and continued efforts to generate an Environmental Management System (EMS) to help identify significant environmental impacts of our activities, products and services and focus on continuous improvement using a plan-do-check-act approach to problem solving as well as selecting and achieving goals to support sustainable and environmentally conscious operations.

The EMS has since been completed and successfully implemented, as evidenced by the June 2013 Letter of Conformance provided by a qualified external third-party auditor, Perfect Environmental Performance, LLC., documenting that the EMS conforms to the “functional equivalency” requirements of ss. 299.83.

## **Environmental Compliance**

Last year was another year without a regulatory violation which also included zero non-conformities from the aforementioned third-party audit of our site-specific EMS.

## **Tracking 2013 Objectives**

### **Energy Consumption / Reduction:**

- Realize an average year-end dryer fuel consumption of 1.522 therms/ton dried (or less) for 2013

*The Unimin-Portage facility continued to work on its dryer circuits to improve fuel consumption. Despite increased precipitation and colder than normal fall temperatures, fuel consumption was controlled and aspects of the dryer system were identified for improvement opportunities in 2014. Year-end fuel consumption was 1.61 therms/ton dried.*

- Realize an average year-end electrical consumption of 11.27 KWH/ton dried (or less) for 2013

*As with the dryer fuel consumption, the Unimin-Portage facility worked on projects to improve electrical consumption during 2013. In addition to the unfavorable weather conditions, the facility also mined additional material to ensure adequate plant feed during the winter mine curtailment. Year-end electrical consumption was 12.54 KWH/ton dried.*

### **Waste Generation / Reduction:**

- Reduce waste, increase recycling such that no more than 50 tons of garbage is disposed of via the large waste dumpster (to landfill).

*Through its recycling efforts, the Unimin-Portage facility's total garbage disposal to landfill was 19 tons during 2013.*

### **Direct Environmental Affects:**

- Harvest at least one truckload of timber from timber stand south of Duck Creek, west side of pheasant project area.

*At the recommendation of DNR forester, and working with a local timber harvesting company, the Unimin-Portage facility harvested six truckloads of wood from the project area.*

- Spray 10 acres of pheasant project area to control knapweed.

*While plans were in progress to spray the invasive plants, an early frost occurred in the area. Plans are in place to resume the project and perform projects to improve the habitat project areas in the spring of 2014.*

### **Other Accomplishments**

- No Spills to the environment
- Recycling projects and improvements – including initiating removal of a scrap metal dump and reclaiming the dump area (See below)
- Housecleaning project identified asbestos containing material (acm) being stored onsite that was properly removed and disposed of.
- Reduce waste – continued to recycle / repurpose items such as used pallets and conveyor belting, versus discarding these materials
- Unimin-Portage facility presented EMS training to all site employees. The employees have responded in a positive manner and are more aware of best practices in all aspects of the facility activities.
- Continued wildlife habitat projects, including sponsoring a blue-bird trail, which was facilitated and chronicled by local member of the Audubon Society; and enhanced pollinators, by providing a local bee keeper with an on-site location for his bee hives.

### **Scrap Metal Dump Removal Project**

A 2012 internal environmental audit discovered a dump onsite that had apparently been left by the previous owners estimated sometime in the 1940s-1970s. The dump was located in a remote and infrequently visited portion of the site consisting of mostly scrap metal from old surface mine and process equipment and was not easily seen due to the dense foliage that had grown up through and around the materials.

Although the dump didn't appear to contain hazardous waste and was not required to be removed under state regulations, Unimin Corporation's sustainable operations adopt policies to help ensure that mined properties are reclaimed and left in the same or better condition than pre-mining activity to support future land use. As a result, the facility investigated further into the scope of what it would take to remove and properly dispose of the material.

After clearing some of the brush and coordinating with outside contractors, the plant began separating and removing the dumped materials. After all was said and done, 38 total tons of material was removed from the site, of which approximately 36 tons, or 95 percent, were able to be recycled thus reducing the volume sent to landfill. Proceeds from the scrap metal eased the cost incurred to remove the waste as well as contribute to the stabilization and reclamation of the disturbed area.

The plant will continue to manage site stabilization as they enter the 2014 growing season and celebrate a positive environmental aspect that is good for the company as well as the community and environment.

### **Planning for the Future, Starting with 2014-2015**

Continue with Energy Consumption reduction efforts

- Realize an average year-end dryer fuel consumption of 1.522 therms/ton dried (or less) for 2014
- Realize an average year-end electrical consumption of 11.27 KWH/ton dried (or less) for 2014

Continue project to control invasive plants and improve prairie grassland habitat for game birds and other wildlife; the Unimin-Portage Facility will spray 10 acres of pheasant project area grassland to control knapweed.

Additional projects to reduce energy consumption:

- The Unimin-Portage Facility will install at least two automatic timing components on processing equipment that will automatically turn equipment off when not in use.
- The Unimin-Portage Facility will replace at least 6 High-wattage lighting fixtures (350 W or greater) with high-efficiency lighting fixtures (<200 W w/equal lumens)

To reduce / prevent dust emissions and employee exposure to dust:

- The Unimin-Portage Facility will upgrade Screenhouse PLC to provide continuous monitoring of dust collection equipment
- The Unimin-Portage Facility will replace and/or reseal 12,000 square feet of asphalt on the facility roads & parking lots
- The Unimin-Portage Facility will evaluate processing areas for opportunities to further reduce dust. The facility will develop and implement action plans to reduce dust in at least one processing area.

Other: Complete reclamation of cleaned-up scrap dump area by planting grass & wildflowers.