



The ground water analysis is in question because the practical quantitation limit (PQL) for vinyl chloride was too high. Please investigate the analysis of the 2009 and 2010 ground water samples, and re-analyze if possible or provide MDLs achieved. The NOD requested a report within 45 days of the March 1, 2011 NOD. Ohio EPA did not receive the requested report. Ms. Wolf indicated that a licensed C&D site does not need to provide the requested information regarding statistical methods. Ohio EPA disagrees, this information is necessary to determine compliance.

Summit C&D Disposal is in violation of OAC 3745-400-10(B)(2)(e) which requires that the procedures for the analysis of ground water samples shall be protective of human health and the environment and ensure monitoring results that provide an accurate representation of ground water quality.

To return to compliance with this rule, the owner/operator needs to investigate what happened during the analysis of these samples that resulted in the laboratory being unable to achieve a PQL of 2.0 ug/L for vinyl chloride. If possible, all of the samples should be re-analyzed by the laboratory taking care to achieve a PQL of 2.0 ug/L or less. If this is not possible, the laboratory should provide the method detection limits (MDL) that were achieved during laboratory analysis of the 2009 and 2010 ground water samples, and any estimated concentrations that were detected between the PQL and the MDL. The owner/operator should submit a report to Ohio EPA within 30 days of receipt of this letter that contains a complete explanation of this issue. If possible, the report should contain a determination of whether or not vinyl chloride was present in any ground water samples, including estimated concentrations. Going forward, the owner/operator needs to ensure that the laboratory properly quantifies for vinyl chloride during ground water sample analysis to a PQL of 2.0 ug/L or less, to ensure monitoring results that accurately represent ground water quality and are protective of human health and the environment.

- 2. OAC 3745-400-10(B)(3) Ground water sampling; requires the documentation of the ground water elevation of the first continuous significant zone of saturation underlying the facility on a potentiometric map.**

*Ohio EPA NOD dated March 1, 2011 and facility letter dated March 23, 2011 regarding 2009 and 2010 annual ground water quality reports and 2<sup>nd</sup> quarter leachate monitoring*

In Section 4.0 of the 2009 and 2010 annual ground water quality reports, it is stated that only four of the six network monitoring wells were used to define the potentiometric surface. Monitoring wells MW-4 and MW-6 were not used

according to this document, because they do not significantly agree with the site's hydraulic gradient. The reasons cited for this lack of agreement include the completion depth of these wells, and changes in lithology across the site which partially isolates these wells from the uppermost saturated unit (first continuous significant zone of saturation). However, in Sections 2.0 and 3.0, these wells (MW-4 and MW-6) are clearly included as part of the network ground water monitoring system (MW-1R through MW-6) and are sampled annually pursuant to OAC Rule 3745-400-10 to determine the quality of the ground water from the first continuous significant zone of saturation underlying the facility. This is a contradiction. As such, Ohio EPA cannot accept that the potentiometric map contained in the subject document adequately represents the ground water elevation, and direction of ground water flow, of the first continuous significant zone of saturation underlying the facility.

It is important to note that Ohio EPA and the owner/operator's consultant, Bowser & Morner (B&M), met on January 5, 2011, and discussed site wide hydrogeologic and ground water monitoring issues. In particular, it was decided that a replacement monitoring well will be installed for existing MW-4. B&M agreed that it appeared to be installed too shallow to properly communicate with and monitor the first continuous zone of saturation underlying the facility. As with MW-4, MW-6 may have been screened across more than one potential zone of saturation. While Ohio EPA has some concerns about how this well was installed and constructed (it was not double cased through the shallow materials and has a very long combined screen and sand pack), it ultimately seems to have been adequately installed to monitor the first continuous significant zone of saturation underlying the facility in this area.

However, during the January 5, 2011 meeting, B&M shared their technical opinion that MW-6 monitors a different, deeper zone than the rest of the first continuous zone of saturation wells (MW-1R, 2, 3, and 5). In an effort to better understand the geology/hydrogeology in the northeastern part of the facility and this unit in particular, it was agreed that two additional borings would be installed to better investigate and delineate this zone. Ohio EPA agreed to be present in the field during the drilling and logging of these borings. It was also agreed that a field call between B&M and Ohio EPA would be made as to whether or not to install wells/piezometers at these boring locations.

The owner/operator scheduled and completed the additional site investigation work agreed to during the January 5, 2011 meeting, during the month of April 2011. On May 31, 2011, Ohio EPA received a revised ground water monitoring plan that contains the results of this additional work. The new potentiometric map of the first continuous significant zone of saturation contained in the revised plan does not include the static water levels from either MW-6, or the

replacement well for MW-4 (MW-11). According to the plan, MW-6 is located in the lower portions of the UAS, is isolated from the upper portions of the UAS, and is not representative of UAS water quality. Meanwhile, MW-11 is still being redeveloped and static water elevations were not representative of the UAS at the time the plan was revised. As a result, Ohio EPA cannot accept that the potentiometric map contained in the revised plan adequately represents the ground water elevation, and direction of ground water flow, of the first continuous significant zone of saturation underlying the facility.

To return to compliance with this rule, the owner/operator needs to submit a new potentiometric map, for inclusion in the revised plan, of the first continuous significant zone of saturation (uppermost aquifer system) that includes, incorporates, and is reflective of, the static water elevations of MW-6 and MW-11.

Summit C&D Disposal is in violation of OAC 3745-400-10(B)(3) which requires the documentation of the ground water elevation of the first continuous significant zone of saturation underlying the facility on a potentiometric map.

### **3. Order 3 of the April 2008 DFFOs Leachate diversion plan**

*Ohio EPA NOV dated March 11, 2011 and facility letter dated March 22, 2011, regarding the Remedial Alternatives Screening.*

Order 3 requires the leachate diversion plan to be submitted not later than 60 days after receiving notice that the hydro-geological study indicates that ground water is entering the facility. Brief history:

The hydro-geological study was received on July 9, 2008, and addendum report on February 6, 2009. Ohio EPA letter dated May 13, 2009 provided confirmation that ground water is entering the facility. Summit C&D Disposal did not agree. However, on June 14, 2010, Summit submitted the report containing the results of the seismic survey and acknowledged ground water was entering the facility.

The Remedial Alternatives Screening was received on December 23, 2010. Ohio EPA sent an NOV dated March 11, 2011 regarding the Remedial Alternatives Screening. A response is needed from the facility.

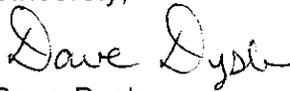
The parties met on February 10, 2011 and discussed options for ground water diversion and the Facility indicated it would submit an equilibrium test plan by March 31, 2011. On March 29, 2011, Ohio EPA received the equilibrium test plan. Ohio Attorney General's letter dated February 22, 2011 included requirements for the plan.

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August 25, 2011  
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Summit C&D Disposal remains in violation of Order 3 of the April 2008 DFFOs which requires a detailed ground water diversion plan.

If you have any technical questions regarding this review, please contact Mark Kroenke at (330) 963-1225. Please submit all correspondence to Dave Dysle, Division of Materials and Waste Management, Northeast District Office, Ohio EPA, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Sincerely,



Dave Dysle  
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