RBT

7.10.93

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10 July 1993

Niedermeyer-Martin Co.
Wood Products
Since 1920

Dr. Marcia Bailey
Environmental Scientist
RCRA Compliance Section
U.S. EPA, Region 10
1200 Sixth Ave.
Seattle, WA 98101

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RCRA COMPLIANCE SECTION

USEPA RCRA 3058111

Dear Dr. Bailey,

After receiving the Operation and Maintenance Inspection Report on the RBT site by PRC, Inc., David Newton and myself have reviewed its contents and the sampling recommendations. Accordingly the following sampling adjustments have been incorporated beginning with the last episode done this March:

1. Clean sampling gloves are worn for sampling at each well.

2. A new water level meter marked at each 0.01 ft. is used.

3. Dedicated bailers are used for well sampling alleviating the need for decontamination of a common bailer between each well.

4. Temperature, pH and specific conductivity are monitored during purging.

5. Purge water is collected and contained on site until chemical analysis data is received and reviewed.

We have received and reviewed the results of the sampling and analysis round at the site, and have enclosed the data with a summary sheet of all the analysis from all the wells sampled. There were no contaminants at levels of concern in any of the wells or in the toe drain or under drain. TOX was ony present in well 5 (at 0.28 ppm) which is down field of the neighbors septic system.

On page 6 and 13 of the PRC report, reference is made to the fluctuations in water levels observed, especially in well 1 changing 26 ft. in 3 days. Their experience could not explain this observation and so discounted it.

The phenomenon is interesting but not unknown. At this site well no. 1 water elevation consistently shows a dramatic and rapid change after a rainfall of over approximately 1.6 inches/day. The response has shown a 30 ft. rise in 8 hours. Likewise upon the cessation of rain the dissipation has been rapid,(e.g. within a day). Well 6 has shown a similar response of 34 ft within one day after abundant rainfall (at the same time as well 1). The other wells also fluctuate but in a less dramatic degree, at a lower crest and not always with the same storm event as wells 1 and 6. It is apparent that at the screened level of these wells we do not have standing water but an underground stream or streams.

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On page v para. 2 of the report PRC suggests that cell contaminants are migrating to the monitoring wells, because "several of the wells show low levels of contaminants."
An examination of the attached Table I, from the report shows that **such a conclusion cannot be drawn from the data.** The data from the two Rinsate Blanks (not originally present) have been added. The first blank (no. 130150) apparently had less noise in the run and the lab. was able to look at lower levels for contaminants. In contrast to this the next blank (130168) apparently did not allow visualization below the .06 ppb level and therefore no contaminants were detected. But in every case when they were able to look at lower concentrations they saw contaminants in the blank above the noise level.

The same conclusion is valid for the well samples. That is, for samples that could be viewed below the laboratory's normal 0.06 ppb detn. limit, then some level of contamination was visible. However the reason for using blanks in chemical analysis is to determine what the boundaries are in reporting positive values. These two blanks show that contaminants visible in well samples below the .06 ppb detection limit cannot be attributed to anything different than is ascribed to the blank. Although we generally see ppt levels of contaminants reported in all the samples, the same pattern occurs in the blank, showing that these contaminants do not necessarily come form the site cell.

Only one target compound was detected from any of the monitoring wells, phenol in B-6, at an estimated 0.9 ppb and was not detected in the toe drain. **There were several compounds detected at or below 1 ppb in the toe drain but not in any of the wells at the method detection limit.**

PWT Corp. would like to receive formal approval of a monitoring plan for the site. Robert Farrell suggested that if continuity could be established for the underdrain then it with the toe drain could serve as the monitoring system (14 Dec. 1990 meeting in Seattle). Further investigations showed evidence for this continuity. (See 19 June 1992 letter to EPA by David Newton Asst). Mr. Newton therein recommended that these two water sources should be used as the monitoring system. The PRC report claimed evidence for continuity between the cell and the shallow monitoring wells (discussed above) and recommended inclusion of the those wells with the toe and under drains as a monitoring system provided that the monitoring wells did not show high levels of contaminants. The data from these wells do satisfy that criteria. The hydrogeological and chemical data obtained from the site seem to support either monitoring system so that either one of them could currently be used.

Considering the past data information submitted leading to the above alternatives the following monitoring system is recommended as being appropriate for the site.

I. Continue to study the hydrology in the following manner:
   1. Follow the daily rainfall from observations made either at the site or at the Ridgefield city observation point to determine the onset and intensity of the wet season
   2. If a heavy rain in the vicinity of 1.5 inches occurs the well water levels could be monitored to determine the rate of rise and fall and the crest levels.
   3. Use the above information to determine the best time for sampling and to further characterize the site hydrology if needed.

II. Use the toe drain and the underdrain as the monitoring system to sample and analyze according to 265.92 for applicable contaminants including pentachlorophenol and arsenic.
The sampling and analysis of these two water sources which are immediately connected hydraulically to the cell, will assure that no contaminants leave the site by providing an early warning system of any contaminants that should begin to migrate from the cell proper.

We would appreciate your response to this recommendation.

Sincerely yours,

Bryant L. Adams

Bryant L. Adams, Ph.D.
Environmental Engineer

Enclosures:

1. "RBT Inspection Report" Table I (modified by addition of analytical results from two rinsate blanks), by PRC for EPA Region 10, Aug. 27 1992.
2. Columbia Analytical Services data report of Samples taken on March 26 '93, from the "RBT" site Toe drain, Underdrain, well 4 and well 5 with "Analytical Report Summary.

cc: Terry Niedermeyer, V.P. PWT Corp.

Table 1

Detected Compounds (μg/L)

Inorganic Compounds	RB-B4-01	RB-B10-01 (duplicate of B4)	RB-B5-01	RB-B6-01	RB-TD1-01	RB-TD2-01	RB-TD10-01 (duplicate of TD-1)	Rinsate Blank - samples 130150 & 1	Rinsate Blank - samples 130168 & 9
Total Arsenic	1.8J	2.4J	Not Sampled	1.9J	—	—	—	1.5U	1.5U
Filtered Arsenic	—	—	Not Sampled	1.9J	—	—	—	1.5U	1.5U
Total Chromium	15.6J	14.5	Not Sampled	1.7B	1.1B	1.9	1.4B	0.4JB*	1.5B*
Filtered Chromium	1.3B	1.1B	Not Sampled	7JB	.4JB	.9JB	.3JB	0.2JB*	1.3JB*
Volatiles Organic Compounds									
1,2-Dichloroethane	.8J	.2J	5J	—	1.4	.4J	.4J	0.4J*	.6J*
Chloromethane	—	.05J	1J	—	—	—	—	1U	1U
Carbon disulfide	—	.2J	—	—	—	—	—	1U	1U
Chloroform	—	—	1J	—	—	—	—	1U	1U
Chloroethane	—	—	—	—	1J	—	1J	1U	1U
1,1-Dichloroethane	—	—	—	—	.2J	—	—	1U	1U
Vinyl Chloride	1U	1U	1U	1U	1U	1U	1U	0.04J*	1U
Semivolatile Organic Compounds									
Benzo(a)pyrene	.03J	03J	.04J	.05J	—	—	—	.06UJ	.06UJ
Acenaphthene	.0006J	.0006J	.001J	.002J	6J	.2J	6J	.06UJ	.06UJ
Phenanthrene	.005J	.007J	.02J	.01J	1J	05J	1J	.06UJ	.06UJ
Carbazole	.02J	—	—	—	.2J	05J	.1J	.06UJ	.06UJ
Pentachlorophenol	.02J	.02J	06J	06J	1J	.7J	1J	.004J*	.06UJ
4-Methylphenol	.0003J	—	—	—	.01J	.02J	006J	.6UJ	.6UJ
Phenol	—	—	—	9J	—	—	—	.06UJ	.06UJ
2-Methylphenol	—	—	—	—	.005J	.002J	.002J	.1J	.1UJ
2-Methylnapthalene	.002J	003J	.005J	.004J	.02J	.004J	.01J	.06UJ	.06UJ
Naphthalene	—	—	—	—	.4J	.2J	4J	.06UJ	.06UJ
1-Methylnapthalene	—	.003J	.005J	.005J	1J	.05J	.1J	.06UJ	.06UJ
Pyrene	.02J	.01J	.02J	.02J	08J	.02J	.09J	.06UJ	.06UJ
Dibenzofuran	.001J	—	—	.002J	.2J	.06J	.2J	.06UJ	.06UJ
Benzo(b)fluoranthene	.04J	.03J	06J	.04J	—	—	—	.06UJ	.06UJ
Fluoranthene	.01J	008J	.02J	.01J	08J	.03J	08J	.02J*	.06UJ
Benzo(k)fluoranthene	.03J	.03J	.03J	.02J	—	—	—	.006J*	.06UJ
Anthracene	—	—	—	—	.04J	.02J	.04J	.02J*	.06UJ
Dibenzo(a,h)anthracene	—	.02J	—	—	—	—		.06UJ	.06UJ
Acenaphthylene	—	—	—	—	.02J	.007J	.01J	.06UJ	.06UJ
Fluorene	—	—	.002J	—	.2J	.1J	.2J	.06UJ	.06UJ
Benzo(g,h,I)perylene	—	—	—	.02J	—	—	—	.06UJ	.06UJ

— Indicates that compound was not detected above instrument detection limit/method detection limit (U) or that the analyte was not detected at or above the reported result (UJ).

J Analyte was detected above the instrument/method detection limit but not quantified with expected limits of precision. Estimated concentration.

B Analyte also found in analytical method blank, indicates possible sample contamination.

Niedermeyer-Martin Co.

ANALYTICAL REPORT SUMMARY
Ridgefierld Brick and Tile site ground water sample analysis
Sample date: 26 March 1993

Analyte	MRL	B-4	B-5	U9	T8	
Naphthalene	1.0	ND	ND	ND	ND	ppb
Acenaphthene	1.0	ND	ND	ND	ND	"
Acenaphthylene	1.0	ND	ND	ND	ND	"
Fluorene	0.2	ND	ND	.4	ND	"
Phenanthrene	0.1	ND	ND	.4	ND	"
Anthracene	0.1	ND	ND	ND	ND	"
Fluoranthene	0.2	ND	ND	ND	ND	"
Pyrene	0.2	ND	ND	ND	ND	"
Benzo(a)anthracene	0.1	ND	ND	ND	ND	"
Chrysene	0.1	ND	ND	ND	ND	"
Benzo(b)fluoranthene	0.2	ND	ND	ND	ND	"
Benzo(k)fluoranthene	0.1	ND	ND	ND	ND	"
Benzo(a)pyrene	0.2	ND	ND	ND	ND	"
Dibenzo(a,h)anthracene	0.1	ND	ND	ND	ND	"
Benzo(g,h,i)perylene	0.2	ND	ND	ND	ND	"
Indeno(1,2,3-cd)pyrene	0.1	ND	ND	ND	ND	"
TOTAL PAH's	--	ND	ND	0.8	ND	"
Pentachlorophenol	1.0	ND	ND	ND	ND	"
Total Organic Halides	10	ND	282	ND	ND	"
Total arsenic	3	ND	ND	ND	-	"
Dissolved metals:						
arsenic	3	-	-	-	ND	"
chromium	1	1	4	ND	ND	"
copper	2	4	6	3	2	"
iron	4	1,090	3,680	460	668	"
manganese	1	14	105	219	416	"
sodium	20	14,700	3,100	7,060	6,060	"
Total Organic Carbon	0.5	2.3	2.8	2.5	1.9	ppm
Chloride	0.2	10	0.7	4.8	2.8	ppm
Phenolics (total)	0.01	ND	ND	ND	ND	ppm
Sulfate	0.2	1.7	1.6	4.6	5	ppm

MRL = Method Reporting Limit

B-4 = Well 4; B-5 = well 5; U9 = underdrain; T8 = toe drain.

Columbia Anaalytical Services Inc. results (work order no. K931725)