Florida Department of

Memorandum — Environmental Protection

To: Satish Kastury, Program Administrator
Hazardous Waste Regulation

From: Andrew R. Tintle
Environmental Assessment Section

Date: September 5, 2002

Subject: Field Audit; Triangle Pacific Corporation (TPC); 3820 Maine Avenue, Lakeland; Sampling Consultant – American Compliance Technologies

The following is the preliminary report for the field audit conducted at Triangle Pacific Corporation in Lakeland Florida on March 28, 2002. The DEP Hazardous Waste Regulation Section in fulfillment of cooperative agreements with EPA Region IV requested this audit for the management of RCRA permitting activities.

The findings of the DEP auditor, Andrew Tintle, are listed below and in the attachments.

REPORT FORMAT

The audit summary in this correspondence and in the attached checklist and copies of the sampler's field notes comprise the audit report. The checklist findings are coded with the following notations, as follows:

- **Y** The activity is in compliance with the audit statement and no deficiency was found.
- **N** The activity was not in compliance with the audit statement and a deficiency is noted.
- **N/A** The activity was not applicable to the sampling event or was not audited.
- **?** There was insufficient information to determine compliance with the audit statement.

Checklist entries may also include explanatory comments, where applicable.

NARRATIVE

Introductory Meeting and Orientation

The DEP auditor, Mr. Andrew Tintle, arrived on site the morning of March 28, 2002, at 8:45AM to conduct the audit and split sampling event. After checking in at the TPC front office introductions of the ACT sampling crew, Mr. Joe Bennett, Ms. Ann Wortman and Mr. Eric Coffey, took place.

Observations of Sampling Procedures and Documentation for Monitoring Wells

Water levels were measured at each of the audited wells, IW-4, IW-5 and IW-6, using a Solinist Water Level Indicator. The depths were measured from the top of the well casing with all measurements being taken from the north side. All of the water level measurements, purge calculations and field records associated with the sampling event can be found in the copies of the field records attached to this report.

Field Test Meter Calibrations and Measurement for All Audited Wells

Field instruments were calibrated at the base of operations.

1. Dissolved oxygen and temperature were measured with a YSI 55 dissolved oxygen meter.
2. An Oakton meter was used for measuring pH and conductivity.
3. Turbidity was analyzed using an Orbeco-Hellige 966 turbidimeter.

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All Audited Wells

For all of the audited wells, the following was noted:

1. Purging and sampling activities for this project were conducted according to the site Quality Assurance Project Plan, #940309.
2. ACT collected 3 40 mL vials at each well for the analysis of Volatile organic Compounds (VOCs) including naphthalene, n-nonane and cyclohexane. DEP collected 4 vials at each well for VOCs and 2 one liter amber bottles for naphthalene.

Split samples were collected by alternately filling DEP and ACT VOC vials and then filling the DEP amber liter glass bottles.

The auditors presume that no other documentation associated with this sampling event was prepared other than that sent or exhibited to the auditors. Auditors were not present at the time of initial field test measurement calibration, preparation of samples for shipping or transmittal of samples or document preparation to the receiving laboratory.

Purging and Sampling Activities

Purging activities were conducted with an ISCO peristaltic pump using all new 3/8 inch polypropylene tubing with silastic pump head tubing. The quantity of purged groundwater was determined by assessing the peristaltic pump flow rate and timing the duration of pumping. The purge water was collected in 55-gallon drums for subsequent disposal.

Using a constant associated with the casing diameter and multiplying by the feet of water within the well casing the volume of water within the casing was calculated. A minimum of 5 well volumes was purged from each well. One set of field measurements consisting of pH, dissolved oxygen, conductivity, temperature and turbidity was measured after purge completion and before the samples were taken.

Teflon bailers were used for sampling. These bailers were provided by the project laboratory and transported to the sample site covered in plastic. The bailers were rinsed with site water before use. The bailers were lowered into the well with care but it was noted that sediment was being stirred up and getting into the sample especially at well IW-4, the first well sampled. Samples were poured from the top of the bailer into the sample containers. Samples were placed on ice in a cooler immediately after collection.

Decontamination

1. Water level devices were rinsed with analyte- free water between wells.
2. All new down-hole tubing was used for purging. It was observed that this tubing was not protected from potential contamination by wrapping in plastic or otherwise protected.
3. Teflon bailers were not decontaminated by the sampling organization but by the project laboratory. Discussions indicated that decontamination protocols followed the project quality assurance plan. The bailers were protected with plastic wrap.

Preservation

Field preservation was not conducted. The VOC vials used by ACT were not chemically preserved. The vials used by DEP were pre-preserved with hydrochloric acid.

Quality Control

1. No sample duplicates were observed or documented on the project paper work.
2. The collection of an equipment blank was observed prior to the collection of the first well. The project laboratory provided the analyte-free water used for the blank. The bailers were rinsed with analyte-free water provided by the project laboratory and were collected in the same manner as the samples.
3. Trip blanks were in the coolers used to house VOC samples.

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Documentation

Project documentation included the following:

1. Site name, well ID and field ID
2. Date and time of sampling
3. Purging information including equipment
4. Sampling equipment and procedures
5. Preservation and intended analyses and methods
6. Date and time of sample and initials of sampler
7. Ambient conditions
8. Sampler signature
9. Remarks
10. Water Level and well depth
11. Blanks
12. Personnel at site
13. Sample type, number and type of containers
14. Field measurement results and field measurement equipment make and model

Documentation was legible. All corrections were marked out with a single line and initialed.

All records associated with this sampling event are attached to this report.

Exit Interview

Present at the exit interview were DEP and ACT staff as listed in the introduction. Acceptable aspects of the observed sampling event and noted deficiencies were discussed. The audit reporting process was briefly explained indicating that ACT would have the opportunity to clarify audit points and deficiencies noted in the report and respond to any requests for corrective actions.

Summary of Deficiencies Requiring Corrective Actions

1. Even though the turbidity measurements taken at the completion of purging were low, it was observed in two of the wells that the bailer sample was noticeably more turbid than the purged water. Care was taken in lowering the bailer but sediment was still stirred up. This condition was not noted in the field records. It is strongly recommended that alternative methods be investigated to eliminate turbid samples.

2. Plastic sheeting should be placed around the wellhead to prevent potential contamination of the sampling equipment and protect equipment if it accidentally hits the ground or is dropped.

3. A flow through cell was used within which the field measurements were taken. However, the purge rate was causing oxygen to be pulled through the tubing and bubbling in the flow cell causing elevated dissolved oxygen readings at several of the wells. This situation would not meet the DO stabilization criteria in the January 1, 2002, version of the SOPs.

4. Documentation for calibration of instruments used for field testing was not observed. Since the initial calibration was conducted at the base of operations, these records may not have been considered field records and therefore not included with the project documentation. If so, provide them in your response. However, documentation of calibration verification required every 4 hours according to the QAPP must be part of the field documentation.

5. Precautions should be taken to not expose the VOC vials to the atmosphere longer than necessary. The tops should be taken off of the sample vials individually right before being filled with sample. It was observed that the tops were taken off all at once prior to sampling leaving the vials exposed to possible contamination unnecessarily.

6. The QAPP for this project requires the collection of one duplicate sample. In addition, purging of 5 well volumes without demonstrating stabilization of purge parameters is allowed according to the referenced QAPP but the use of polypropylene tubing for purging is not allowed without polishing if VOCs are being sampled. This type of tubing is allowed under the new DEP SOPs dated January 1, 2002.

RESPONSE REQUIREMENTS

1. A response is required for each specific deficiency listed above in the summary of deficiencies requiring corrective action and in the attached checklist.

2. The response may include clarifications, corrections, or explanations for any of the specifically noted deficiencies.

CONSEQUENCES OF NON-RESPONSE

Failure to respond with a corrective Action Plan by the specified date may result in a recommendation to reject all or selective portions of the data for use by the Department. See item #3 under "Department Actions" below.

DEPARTMENT ACTIONS

1. When the Corrective Action Plan has been received, the Environmental Assessment Section will review the proposal to determine if appropriate corrective actions have been taken. If the Plan is acceptable, the Department will issue a final audit report based on the preliminary report and the proposed corrective actions.
2. If modifications to your proposed corrective actions are required, you will be provided another opportunity to propose acceptable corrective actions before the final report is issued.
3. Where circumstances warrant, the Department may recommend to its project managers that any or all data produced from this sampling event should be qualified or rejected, based on audit findings, and regardless of corrective actions initiated by the respondent or his agent. Any such recommendation will be formally communicated to the project manager and or other users of the affected data in accordance with the DEP Quality Assurance rule, 62-160, F.A.C., and all other applicable rules in effect at the time of this audit.

Please call me at (850) 921-9733 or e-mail me at Andrew.Tintle @dep.stae.fl.us if you have any questions concerning the audit report, response requirements, or appropriate corrective actions.

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Attachments (2): Copies of DEP Audit Checklist
Copies of Samplers' Field Records

Cc: Russ Frydenborg, DEP EAS w/attachments