GeoTrans, Inc.
A TETRA TECH COMPANY
175 N. Corporate Drive
Suite 100
Brookfield, WI 53045
www.geotransinc.com
262-792-1282 FAX 262-792-1310

November 26, 2003
(1011.002)

Ms. Jennifer Pelczar
Wisconsin Department of Natural Resources
625 E. County Road Y, Suite 700
Oshkosh, WI 54901-9731

Re: Scope of Work for Additional Investigative Activities
FF/NN Landfill, Ripon, WI

Dear Ms. Pelczar:

As outlined in our October 29, 2003 letter to Raymond Roder, we propose additional site investigation activities. The intent of this letter is to provide a scope of work for those activities, including an estimated timetable. The activities are presented in the order of expected completion. The rationale for these activities was provided in our October 29, 2003 letter and, therefore, is not repeated in this letter.

ADDITIONAL INVESTIGATIVE ACTIVITIES

Installation of well P-103D: GeoTrans will oversee the installation of one well (P-103D) to be screened at the top of the sandstone and nested with wells MW-103 and P-103. The borehole will be drilled by Boart Longyear using rotosonic technology. As the soils have previously been logged down to 80 feet below ground surface (bgs) from well P-103, the borehole will be blind drilled to that depth. In order to better delineate the geology in this area, particularly the clay unit, continuous soil and rock sampling will occur beginning at 80 feet bgs to the bottom of the borehole at approximately 190 feet bgs. These samples will be used to complete a borehole log and may then be provided to the Wisconsin Geologic and Natural History Survey for their use. In addition, four groundwater samples will be collected at 25-foot intervals beginning at 100 feet bgs and analyzed for VOCs.

The bottom of this well will be placed at 10 feet below the top of the sandstone unit. The well will be constructed with 2" Schedule 80 PVC casing with a five-foot screen at the bottom and a stickup protective casing. If the upper 10 feet of the sandstone appear highly weathered based on the cuttings, drilling will continue for an additional five feet, and the screen will be placed at 15 feet below the top of the sandstone unit. Once the well has been completed, it will be developed per NR 141 requirements and a groundwater sample will be collected for VOC analysis.

The installation of this well is scheduled to begin on Monday, December 8, 2003, and is expected to take 3-4 days. The well development and subsequent sampling will be scheduled concurrently with the development of the new wells constructed within the private wells. This will likely occur in early 2004.

Conversion of Wiese and Hadel wells to piezometers: The private drinking water well at the Wiese home (N8778 S. Koro Road) will be converted to piezometer P-115 for future monitoring use. Before performing this conversion, a variance will be requested from Mr. Rick Stoll of the WDNR. Once WDNR approval is received and the Wiese's home is connected to public water, the conversion will be scheduled. The well pump and associated piping will be pulled from each well, and a 2-inch Schedule 80 PVC monitoring well with a five foot screen will be installed within the existing 6" casing. The well will be completed as a flushmount.

We have been advised that the Hadels (W14292 Charles Street) have declined the PRPs' offer to connect them to the public water supply without cost or assessment in exchange for use of their well solely as a monitoring well. We also have been advised that Ripon Town Board Chairman, Mr. Morgan, will be revisiting the matter with the Hadels. If the Hadels eventually agree with the connection/conversion, their well will be designated P-116.

After the conversion is completed, the well (or wells) will be developed per NR 141 requirements and a groundwater sample collected for VOC analysis. Because the scheduling of the conversion(s) and subsequent activities is contingent on the home(s) being connected to public water, the conversion will likely not occur until early 2004.

Installation of four gas probes outside of the landfill boundaries: Four gas probes will be installed within 150 feet of the landfill waste boundaries as allowed by NR 507.11(3)(b), once access agreements have been obtained. The approximate locations are shown on Figure 1.

The probes will be constructed with 2" Schedule 40 PVC casing. Each gas probe will be screened from 5 feet below the ground surface to the depth of the waste. Each probe will be provided with a shutoff valve and completed with a stickup protective casing unless otherwise noted.

GP-1 will be located on the property north of the landfill. The land rises abruptly (at least 10-15 feet) at the property boundary, and there is a rather steep access road off of South Koro Road that runs along the ridge. We propose to place the gas probe on the southern edge of this access road and as far east as allowed by the trees. The estimated depth of this probe is 45 feet, and its distance from the wastes in the landfill is about 100 feet.

GP-2 will be located in the right-of-way on the western side of South Koro Road directly across from the landfill. This well will be completed with a flushmount protective casing. The estimated depth of this probe is 35 feet, and its distance from the wastes in the landfill is about 50 feet.

GP-3 will be located between 120 to 140 feet south of the landfill waste boundary, lying between MW-112 and MW-103 in the east-west direction. We are conferring with Steve Barg, Ripon City Administrator, about the proposed dog park as we wish to accommodate the park development needs without compromising this scope of work. The estimated depth of this probe is 35 feet.

GP-4 will be located just north of the existing 102 well nest. The estimated depth of this probe is 10 feet, and its distance from the landfill wastes is about 100 feet.

The final placement of these probes is dependent on receiving authorization from the property owners, which is currently being sought by Mr. Roder. The probes will be sampled for landfill gas during the next gas monitoring event, scheduled for April 2004.

Determining hydraulic conductivities of wells: Slug testing will be conducted for wells P-113B, P-114, P-115, P-116 and P-103D. The tests will be performed once all of these wells have been installed and developed. During the slug test, an In-Situ miniTROLL® pressure transducer is placed in the well along with a slug of known volume. Once the water level has stabilized, the slug is removed and the transducer records the recovery progress of the well. The data is then processed for use with aquifer test software Aqtesolv® to calculate a hydraulic conductivity measurement.

Sampling of wetland pond downgradient of MW-112: This task requires collecting one groundwater sample for VOC analysis from the wetland pond located on Roger Washkovick's property, contingent upon site access authorization. The collection will occur during a site visit when the pond is not frozen over and safe passage through the wetland is visible (i.e. no snow cover). This task is expected to be completed by the April 2004 monitoring event, providing site access is obtained.

Survey wells and reporting: Once all of the wells and gas probes have been installed, they will be surveyed for state plane coordinates (wells and probes) and elevation (wells only). After all tasks have been completed, a brief letter report will be prepared for the WDNR. This is anticipated to be by the spring of 2004, pending access approvals, and may be included in the status report for the April 2004 monitoring event if the data are available.

Thank you for your consideration of this information. As noted, the installation of well P-103D will commence on Monday, December 8, 2003. If you should have any comments regarding the scope of work for this particular task, we request that you contact us by December 3, 2003. If you should have any questions, please don't hesitate to contact either of us.

Sincerely,

GeoTrans, Inc.

Gerald DeMers
Senior Engineer, Associate

Heidi W Yantz
Project Hydrogeologist

cc: Raymond Roder, Reinhart Boerner Van Deuren, s.c.
Nelson Olavarria, Cooper Industries
Steve Barg, City of Ripon

BANECK
GAASTRA
P-116
HADEL
CHARLES STREET
BICYCLE PATH
P-113A
P-113B
P-114
WEISS
P-115
MILLER
ALTNAU
KORO ROAD
ROHDE
P-111
P-111D
MW-111
MW-3A
MW-3B
P-108
MW-108
GP-2
P-104
MW-104
MW-112
LC-3
LC-1
GP-1
GP-3
P-107D
P-103D
P-107
MW-107
P-103
MW-103
P-101
MW-101
LC-2
P-102
GP-4
MW-102
P-106
MW-106

- David Sauer + sisters own

EXPLANATION

- P-104 / MW-104 — MONITOR WELL, PIEZOMETER LOCATION, DESIGNATION
- LC-2 — LEACHATE HEAD WELL LOCATION, DESIGNATION
- — — — OUTLINE OF CLOSED LANDFILL
- P-116 — PROPOSED MONITORING WELL
- GP-1 — PROPOSED GAS PROBE

N

SCALE

0 500

Feet

FF/NN LANDFILL
RIPON, WISCONSIN

PROPOSED MONITORING WELLS AND GAS PROBES

DATE:	10/15/03
DESIGNED:	HWY
CHECKED:	HWY
APPROVED:	GLD
DRAWN:	HJW
PROJ.:	1011.002

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Figure 1

S:\CAD\Ripon\N734\10-15-03\34wl04-b.dwg 10/15/2003 08:56:22

Heidi Yantz - FF/NN Landfill Work Plan

From: Heidi Yantz
To: Pelczar, Jennie
Date: 11/26/2003 1:18 PM
Subject: FF/NN Landfill Work Plan
CC: Barg, Steve; DeMers, Jerry; Drake, Travis; Noel, Mike; Olavarria, Nelson; Roder, Raymond

Hi Jennie,

Attached is the work plan as requested. We are sending a hard copy via US Mail as well.

Heidi W Yantz
Project Hydrogeologist
GeoTrans, Inc.
hyantz@geotransinc.com
175 N. Corporate Drive, Suite 100
Brookfield, WI 53045
262-792-1282
262-792-1310 fax