

November 29, 2010

Mr. Scott Miller
Remedial Project Manager
United States Environmental Protection Agency
Region IV, Superfund North Florida Section
61 Forsyth Street, SW
Atlanta, GA 30303

RE: GRU Comments to GeoTrans' Work Plan entitled *Field Investigation of Historical Linear Features Identified from Aerial Photographs and Potential Drum-Disposal Areas, Koppers Inc. Site, Gainesville, Florida* dated October 11, 2010

Dear Mr. Miller:

Attached are comments from GRU and the City of Gainesville on the GeoTrans' Work Plan entitled *Field Investigation of Historical Linear Features Identified from Aerial Photographs and Potential Drum-Disposal Areas, Koppers Inc. Site, Gainesville, Florida* dated October 11, 2010

Thank you for your on-going effort in addressing the Cabot/Koppers Superfund site. If you need additional information, please contact me at 352-393-1218.

Sincerely,



Rick Hutton, P.E.
Supervising Utility Engineer

xc: Fred Murry (City of Gainesville)
Stewart Pearson (City of Gainesville)
John Mousa (ACEPD)
Kelsey Helton (FDEP)
Mitchell Brouman (Beazer East, Inc.)
John Herbert (Jones Edmunds)
David Richardson, Ron Herget (GRU)
Correspondence

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GRU & City of Gainesville Comments to GeoTrans' Work Plan entitled: *Field Investigation of Historical Linear Features Identified from Aerial Photographs and Potential Drum-Disposal Areas, Koppers Inc. Site, Gainesville, Florida* dated October 11, 2010

General Comments to the Work Plan:

1. All confirmation trenches/test pits should extend to undisturbed soil. The plan currently calls for maximum depth of 8 ft or the water table, whichever is deeper. Excavating should continue deeper if backfilled or disposed material is encountered in a trench and where piles of material may be greater than 8 ft in height (at bark/sawdust piles for example).
2. EM and GPR surveys should each be conducted throughout the full length of each geophysical transect line. It is likely that drums, if buried at the Koppers site, have degraded over the years and may yield an attenuated EM response relative to new drums. GeoTrans should not rely on EM detections to decide where to conduct the GPR survey (see the discussion in Section 2.5.2 - Drum Investigation Southwest Area for example).
3. The work plan should be edited to remove ambiguity regarding the number of trenches/test pits to be installed at each area being investigated (assure singular/plural consistency within each section).
4. The work plan should be amended to characterize three features that we identified from historical aerial photographs in the South Lagoon area (see Review of Aerial Photographs section of this document).

Specific Comments to the Work Plan:

5. Section 2.2.1 - GeoTrans states in the last paragraph of this section that GPR would achieve 100% coverage at a depth of 7 feet. A geophysical contractor that we contacted believes that this is an optimistic conclusion. While the GPR antenna emits a conical beam (wider beam the deeper you go into the subsurface), the return signal at the edges of this beam will dominate only if the response is caused by a very strong target (dielectric contrast). That contractor assumes that in practice you have to be directly over the target for proper detection.
6. Section 2.2.2 - The work plan calls for using EM as a metal detector (ferrous and non-ferrous targets), many of which might not be drums. The geophysical contractor we consulted suggests using a magnetometer survey that would focus on ferrous targets (drums) only.
7. Sections 2.2.1 and 2.2.2 state that geophysical traverse locations will be recorded using GPS. Is GeoTrans sure that GPS receivers will work under the dense tree cover at the SW part of the site?

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8. Section 2.3, second paragraph: Sunshine One Call generally locates utilities up to the property boundary but not within a facility itself. They might locate major utilities like gas transmission lines or fiber optic lines but will likely not identify utilities servicing the facility.
9. Section 2.4, second paragraph: It is not clear how many confirmation trenches will be dug.
10. Section 2.5.2: GPR should be conducted at all transects regardless of whether the EM survey indicates the potential presence of drums. (If drums were buried at the Koppers site they may have degraded over the years and may yield an attenuated EM response relative to new drums.)
11. Section 2.5.4: The first sentence in the second paragraph states that "One shallow test pits will be installed in each of the three historical disturbed areas identified in the northwestern area of the site." We assume the authors intended "pit" singular in that sentence. We believe that at least two test pits should be excavated in each of the three source areas. Also, the text mentions sampling soil but we believe the material disposed was bark. We suggest that, to avoid confusion, the work plan should specify that "material" rather than "soil" will be sampled.
12. Section 2.5.4: Bark piles may be higher than 8 ft in some areas so the proposed maximum trench depth of 8 ft will not reach native soil at those locations. Trenches should extend to native, undisturbed soil in each test pit/confirmation trench.

Review of Aerial Photographs

We reviewed aerial photographs on file at the University of Florida Digital Collections (<http://ufdc.ufl.edu/aerials>) and photos provided by others to see if we could identify evidence of activities that would warrant additional investigation by Beazer during execution of the proposed work plan. The aerial photos we reviewed covered the period 1937 to 1971 (Photos from 1961 through 2009 are attached. Three items of interest are visible in those aerial photos:

- 5 East-West trending parallel linear features evident south of South Lagoon area (between lagoons and fence).
- A previously unidentified, irregularly shaped pond located west of the parallel features.
- The former South Lagoon complex extended north to approximately the south end of the metal drying kiln (to a line extended westward from the south end of that building).

The attached aerials illustrate these. The 5 East-West parallel linear features are first visible in the 1956 aerials¹ (not visible in the 1949 photos). They are also visible in aerials taken in 1961 (attached) but were largely covered in 1968 (attached).

The features extend from the south fence north to a line even with the north end of the pressure treating building as seen on the 1961 aerial photograph (attached). Soil borings and test pits have been installed in this area. As can be seen from the aerial photographs, the

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distance across the features (their width) is less than the distance between them – meaning that less than half the area in the red box on the photographs is occupied by the features themselves. It is possible that the previous soil borings were drilled between them. We believe Beazer should conduct geophysical surveys in this area and excavate test pits at anomalies – if any are identified. At a minimum, one linear test pit is needed oriented perpendicular to the linear features (as is proposed for the linear features north of the north lagoon).

The previously unidentified pond is visible in the 1961 and 1968 aerials and is outside the mapped Former South Lagoon. The pond appears to be west of the area investigated by soil borings and test pits (as reported in the DNAPL Source Zone Evaluation report dated September 2004). See the attached aerial photos^{2,3}. Boring CPT-43S is south of the pond.

The complex of lagoons at the Former South Lagoon area extends north to a line even with the south end of the metal kiln building (see attached annotated aerial photographs). In comparing these photos with Figure 3 of the 2001 DNAPL Source Zone Evaluation report, it appears that only boring CPT-44S is within the northern 250 ft of the area formerly occupied by the South Lagoons (boring CPT-38 is probably east of the lagoons). Additional characterization of subsurface conditions is needed in this sparsely sampled part of the Former South Lagoon complex.

Per our Comment 4 (above), we believe the linear features, the previously unidentified pond, and northern end of the Former South Lagoon complex should be characterized before remedial design is completed. Including these features in this work plan would be a logical and reasonable start to that investigation.

Referenced Aerial Photographs:

¹**Group Title:** Aerial photographs of Alachua County **Title:** Aerial photographs of Alachua County - Flight 2R (1956) Tile 155

²**Group Title:** Aerial photographs of Alachua County **Title:** Aerial photographs of Alachua County - Flight 1BB (1961) Tile 277

³**Group Title:** Aerial photographs of Alachua County **Title:** Aerial photographs of Alachua County - Flight 1KK (1968) Tile 301

Attachment to GRU comments on:
Workplan for Field Investigation of Historical Linear
Features Identified from Historical Aerial Photographs
and Potential Drum-Disposal Areas, Koppers, Inc. Site,
Gainesville, Florida
Dated October 11, 2010

Annotated Aerial Photographs of Former
South Lagoon Area

Koppers South Lagoon 1961

(free of annotations)



Koppers South Lagoon 1961

(annotated)

Lagoons extend north almost to south end of metal kiln in 1971 photo.

Approx. location E-W linear features.

Former pond west of linear features.



Koppers South Lagoon 1968

**Former pond
west of linear
features.**

**Note difference
between pond
and shadows.**

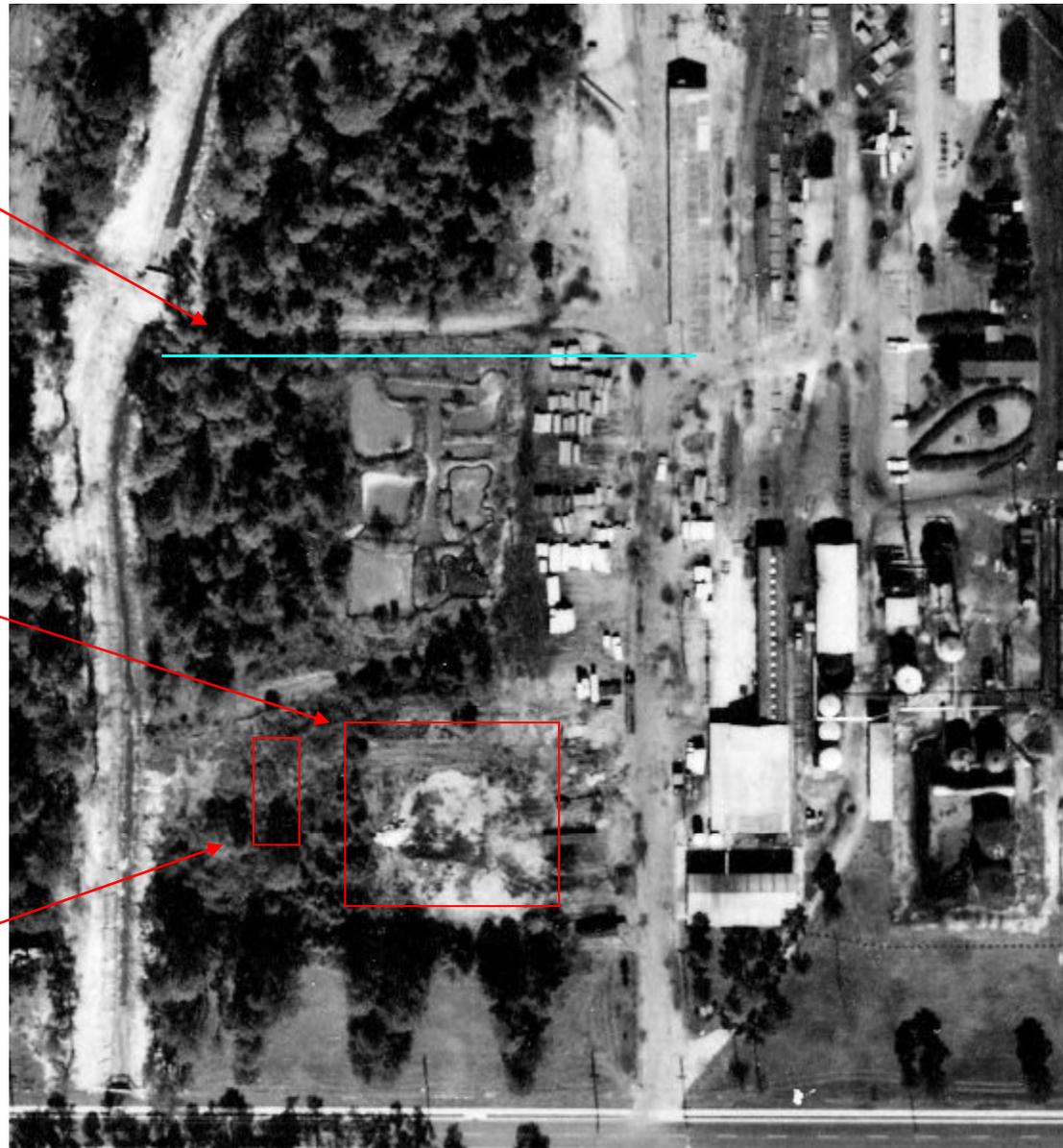


Koppers South Lagoon 1971

Lagoons extend north almost to south end of metal kiln.

Approx. location E-W linear features.

Approx. location former pond west of linear features.



Koppers South Lagoon circa 2009

Northern
extent of
lagoons:
1971 photo.

