

## **GRU Comments on ISGS Report for the Process Area: TetraTech**

**Report dated December 9, 2013**

**GRU Comments Submitted January 17, 2014**

### Principal Concern

GRU's principal concern with the report is that it appears that the ISGS remedy has become focused on only the zones where there is free-phase DNAPL.

For example, the EVS modeling was performed to depict a DNAPL-impact value of 3.6 above which there was probable free-phase DNAPL. (see Section 3.1.1, p. 15). GRU expects that the zone of DNAPL-impact value of 3 (indicating residual DNAPL) would be considerably larger.

Although the work in the site characterization phase was, in part, to identify the locations of free-phase DNAPL for product recovery prior to the ISGS injections, ISGS was to be targeted at all significant zones of DNAPL, both residual and free-phase. Targeting both residual and free-phase creosote was agreed upon by all parties at the ISGS Working Meeting held in Gainesville on Tuesday December 13, 2011. Our records of that meeting are that:

*Beazer will treat all "prominent staining".*

*Bill Osteen wants to err on the side of caution and treat anything that might contribute to dissolved phase.*

*Kelsey and Rob stated that FDEP wants to treat larger intervals, not two feet here and two feet there; FDEP also wants to err on the side of heavier treatment.*

It was agreed that the intent of the ISGS was to immobilize free-phase DNAPL and encapsulation residual DNAPL to reduce dissolution into the groundwater.

Concern about Extent of DNAPL

GRU is also concerned that the extent of DNAPL in the Upper Hawthorn to the east of the Process Area has not been defined. Zones of DNAPL-impact values (“Code”), 3, 4, and/or 5 were found in 8 borings along the eastern boundary of the Koppers property adjacent to the Former Process Area. Beazer’s Code 3 signifies residual DNAPL while Codes 4 and 5 signify free-phase DNAPL.

Creosote impacts, as described in TetraTech’s boring logs are, from north to south (see attached figure):

Boring 420N460E Code 3- 30’-34’, 39’-40’

Boring 380N460E Code 3- 37’-38’, 50’-51’, 54’;  
Code 4/5- 31’-32’, 43’-45’, 46’-47’, 52’-53’

Boring 340N460E Code 3- 40’-41’, 45’, 47’-50’, 54’-55’  
Code 4/5- 51’-53’

Boring 300N460E Code 3- 27’-30’, 32’, 35’-37’, 44’, 51’  
Code 4/5- 28’-29’, 32’, 34’, 37’, 40’-41’, 45’, 52’

Boring 260N460E Code 3- 27’-28’, 29’-30’, 32’, 34’-36’, 40’-41’, 46’-47’, 51’, 53’,  
57’  
Code 4/5- 29’, 31’, 36’, 37’, 42’-43’, 49’-50’, 51’-52’

Boring 220N460E Code 3- 33’, 36’, 37’, 38’-39’  
Code 4/5- 28’, 29’, 31’, 38’

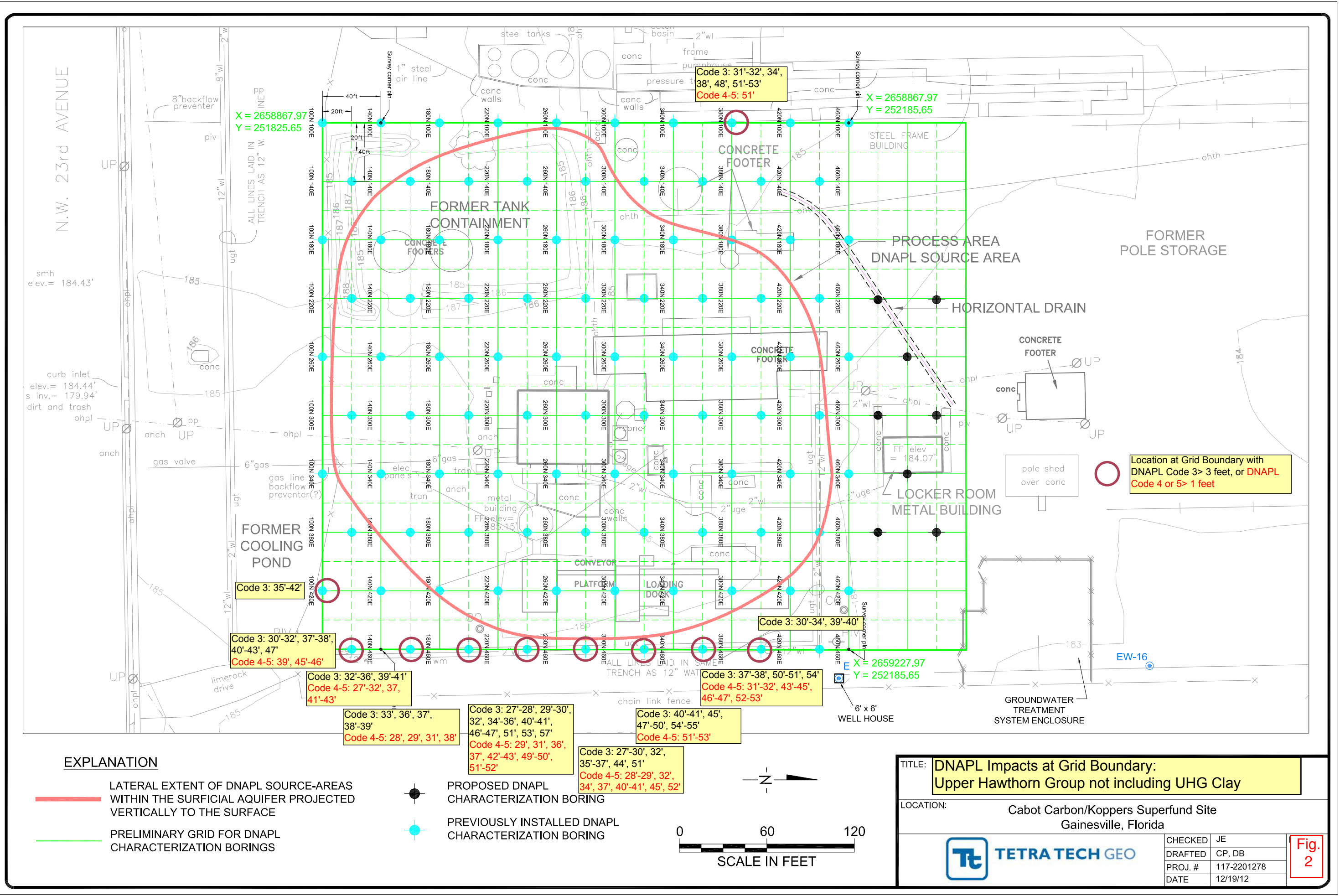
Boring 180N460E Code 3- 32’-36’, 39’-41’  
Code 4/5- 27’-32’, 37’, 41’-43’

Boring 140N460E Code 3- 30'-32', 37'-38', 40'-43', 47'  
Code 4/5- 39', 45'-46'

Borings have not been installed to the east of this area to define the extent of contamination.

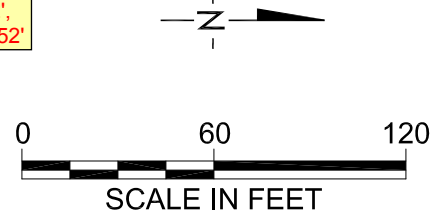
Naphthalene concentrations in HG-26S have varied from 1,300 ug/L to 4,500 ug/L (December 2007 to April 2008 with 9 of 12 values equaling or exceeding 2,000 ug/L. These very high naphthalene concentrations observed strongly suggest that a creosote DNAPL source is nearby within the UHG.

To the degree DNAPL impacts extend to the east, it will be outside the proposed perimeter barrier wall and will not be treated. We hope to avoid a situation like that at the Brunswick Wood Preserving Superfund Site where the barrier wall was extended – twice - to isolate creosote impacted soil.



**EXPLANATION**

- LATERAL EXTENT OF DNAPL SOURCE-AREAS WITHIN THE SURFICIAL AQUIFER PROJECTED VERTICALLY TO THE SURFACE
- PRELIMINARY GRID FOR DNAPL CHARACTERIZATION BORINGS
- PROPOSED DNAPL CHARACTERIZATION BORING
- PREVIOUSLY INSTALLED DNAPL CHARACTERIZATION BORING



|   |             |                   |
|---|-------------|-------------------|
| TITLE: <b>DNAPL Impacts at Grid Boundary:<br/>Upper Hawthorn Group not including UHG Clay</b> |             | <b>Fig.<br/>2</b> |
| LOCATION: Cabot Carbon/Koppers Superfund Site<br>Gainesville, Florida                         |             |                   |
| CHECKED   | JE          |                   |
| DRAFTED   | CP, DB      |                   |
| PROJ. #   | 117-2201278 |                   |
| DATE  | 12/19/12    |                   |