

Honeywell  
101 Columbia Rd  
Morristown, NJ 07962

January 23, 2013

VIA EMAIL AND REGULAR MAIL

Mr. Galo Jackson  
Remedial Project Manager  
US EPA Region 4  
61 Forsyth St. S.W.  
Atlanta, Georgia 30303-8960

Re: PRP's Response to EPA's Letter Dated January 3, 2013  
Final Comments on November 2012 Draft of the Remedial Investigation for  
Operable Unit 3-Upland Soils: LCP Chemical Company NPL Site, Brunswick,  
Glynn County, Georgia

Dear Mr. Jackson,

We are in receipt of EPA's letter dated January 3, 2012, regarding the EPA's and the Georgia Environmental Protection Division's ("EPDs") comments on the Remedial Investigation ("RI") report for Operable Unit 3 (Uplands) ("OU3") for the LCP Chemicals Site. In addition as requested by USEPA on January 18, 2013, the following are the response to comments (RTC) from the Potentially Responsible Parties ("PRPs") – Honeywell, Atlantic Richfield Company, and Georgia Power. The PRP's understand that the agency prefers to review the RTC document prior to incorporating changes into the Final OU3 RI Report. The PRPs request two weeks from agency approval of the RTC, to prepare the final OU3 RI report.

## **Table of Contents**

*1) Table of Contents. Starting with page number for Section 4.2 through Section10, the page numbering is off.*

## **Response:**

Pagination will be updated in the final "clean" version of the document.

## **List of Tables**

*2) The title of Table 6-3 should be corrected to Summary of the OU3 BERA Preliminary Remediation Goals for Soil.*

Response:

The Final OU3 RI Report will be edited as requested.

**List of Figures**

3) *The title of Figure 4-1 should be changed to Upland Drainage Features to be the same as on the figure.*

Response:

The Final OU3 RI Report will be edited as requested.

4) *Figures 5-8a through 5-8e are missing from the hardcopy of the RI made available.*

Response:

Hardcopies of Figures 5-8a through 5-8e will be in the final hardcopy report.

**List of Appendices**

5) *The title for Appendix B should be changed to Comparison of Soil Data for COCs with Residential-Based RGOs.*

Response:

The Final OU3 RI Report will be edited as requested.

6) *The Title for Appendix C should be changed to Spatial Analysis of Soil Data for Primary Ecological COCs.*

Response:

The Final OU3 RI Report will be edited as requested.

7) *The title for Appendix D should be changed to Evaluation of Soil Leaching Potential to Groundwater.*

Response:

The Final OU3 RI Report will be edited as requested.

### **Section 6.2.3.2**

8) *Page 23 (Page 21 Final Submission): Dichloromethane (methylene chloride) was omitted from the list of contaminants of potential concern (COPCs) in the embedded table in the page. This constituent has been identified as a COPC in Quadrant 3 of the approved Human Health Baseline Risk Assessment and therefore should be indicated in the table as such*

#### Response:

Dichloromethane has been added to the list of contaminants of potential concern for Quadrant 3 consistent with the Human Health Baseline Risk Assessment.

### **Section 8**

9) *Page 60 (Page 50 Final Submission): The embedded table does not contain benzene, which was included as one of the five analytes identified as remaining as a potential concern in the 2012 EPA comment memo. Benzene has historically been and is currently being found above the MCL in monitoring wells located on Quadrant 3 and 4. Although only a handful of soil samples in the OU3 dataset from both quadrants exceed the soil screening level (SSL), benzene was reported in the North Removal Area Close-Out Report's final confirmational samples, collected from four to five feet below the base of excavation. Please add benzene to the embedded tables in Section 8 and Appendix D (Table D-1).*

#### Response:

Benzene will be added to the embedded table in Section 8 whereas the PRPs propose to maintain the original content in Appendix D (Table D-1). The reason for this distinction is that Appendix D provides a process for the identification of leaching constituents of potential concern whereby benzene does not carry forward on the basis of the applied set of criteria (which have been agreed upon). However the PRPs agree to the agencies request to add benzene to the list, which is more appropriately presented in the main body of the report where Appendix D is referenced. This added request can be handled simply by insertion of an additional footnote to the embedded table in Section 8 to describe why benzene was added to the list of leaching constituents of potential concern (see below for proposed wording to this footnote).

**\*\*Benzene has been added to the list of leaching constituents of potential concern identified in Appendix D due to a localized condition in Quadrant 3 of the Site.**

10) *Typo on page 60 (Page 50 Final Submission), 2<sup>nd</sup> paragraph, 2<sup>nd</sup> sentence: "...as the cleanup progressed across the Site."*

#### Response:

The Final OU3 RI Report will be edited as requested.

11) *Typo on page 60 (Page 50 Final Submission), 3<sup>rd</sup> paragraph, 2<sup>nd</sup> sentence: "...to direct clean surface water runoff away from..."*

Response:

The Final OU3 RI Report will be edited as requested.

**Figures**

12) *Figure C-6f: The title refers to Aroclor 1268. It should be 1260.*

Response:

The Final OU3 RI Report will be edited as requested.

**Appendix C**

1) *The removal areas shown on the figures obstruct the view of the grids. Please fade-out the removal area color so that the grids may be seen.*

Response:

The grid line "layer" will overlay the removal areas in the GIS (used to create the figures), to show the full outline of the grid boundaries as requested. Attachment 1 provides an example of how the figures will be edited.

2) *Page C-4 of the Appendix C discusses the distribution of lead in surface soils of OU3. The uplands were gridded out, and average concentration within the grids were plotted on the figures. The text does not mention that the concentration of the lead in soils are above the 400 mg/kg preliminary remediation goal (PRG) for the mourning dove in Grid 133 when the one sample from TEG is eliminated. The three non-TEG sampled have lead concentrations of 922, 1580, and 832 mg/kg. Grid Cell 133 is located adjacent to the southern portion of the Dillon Duck and is in a habitat area. Soils in the shore of the Dillon Duck could erode into the pond. Waterfowl accessing the pond from the shores could come into contact with elevated lead in soils and become exposed through incidental ingestion of soils. Lead concentrations in soils are relatively low apart from within Grid Cell 133. The text should mention that the highest average concentration of lead in soils is located in a habitat area.*

*Note that the figure in the December 1997 North Area Close-Out Report showing the removed characterization / confirmational sampling locations, does not show the three samples located in in Grid Cell 113 referred to above. The characterization samples table in the report does list the three samples. The field notes on the August 30, 1996 chain-of-*

*custody form describes the three samples as having been collected along the “edge of marsh along east site of N(orth) S(eparator).” Further, the as constructed excavation figure included in the Close-Out Report (reproduced in part below) shows the area immediately east of the North Separator having been removed and backfilled. It is unclear whether the area represented by these three samples was removed. This required further investigation.*

Response:

Grid cell 133 is occupied mostly by the “Dillon Duck”, a saltmarsh area that is part of OU1 and is not upland soil. The soil samples used in the averaging exercise in this grid (four locations) were not excavated during the uplands removal action. They occur in the narrow strip of unexcavated upland along the bank. Note that concrete rip-rap was placed along this bank as part of the removal action to stabilize the bank from sloughing with the excavation that was performed along the top area. Photographs of the rip-rap are provided in Attachment 2 to this Response to Comments document. There is no indication that this bank is eroding into the Dillon Duck as suggested in the first part of the comment. Furthermore it would be inappropriate to describe the broader portion of Cell 133 as “habitat” as requested in the comment, in the sense that this is not OU3. It would be appropriate to trim this cell to the shoreline border between the uplands and the saltmarsh (as has been done along the western margin of the gridded area along the site). Attachment 2 provides a sequence of figures that illustrate the site setting and features of this area, in support of the response to comment offered.

3) *Typo on page C-3 (Page C-1 Final Submission), Methods, 3<sup>rd</sup> sentence: “...several different data treatment approaches...”*

Response:

The Final OU3 RI Report will be edited as requested.

4) *Typo in age C-5 (Page C-3 Final Submission), last paragraph, 4<sup>th</sup> sentence, please insert comma after 5, as in “Under Scenario 5, which uses the...”*

Response:

The Final OU3 RI Report will be edited as requested.

5) *Page C-6 (Page C-4 Final Submission), first full paragraph: The last sentence, which starts with “Furthermore...,” is actually two complete sentences. Please revise.*

Response:

The Final OU3 RI Report will be edited as requested.

- 6) Typo on page C-6 (*Page C-4 Final Submission*), 3<sup>rd</sup> full paragraph, 3<sup>rd</sup> sentence: "...grid cells are not contiguous."

Response:

The Final OU3 RI Report will be edited as requested.

- 7) *Page C-6 (Page C-4 Final Submission), 2<sup>nd</sup> sentence, 1<sup>st</sup> full paragraph: The sentence refers to a memo, perhaps it should refer to an appendix.*

Response:

The Final OU3 RI Report will be edited as requested.

- 8) *Page C-7 (Page C-7 Final Submission): Risk Management Considerations, indicated that the basis for the preliminary remedial goals was "laden with uncertainties inherent in both the estimates of exposure and the estimates of toxicity." The sentence which reads, "However, the cumulative effect of these conservative choices often results in grossly exaggerated estimates of potential harm to ecological receptors." Should be removed or modified because it is itself an exaggeration. The risk assessment did not use minimum body weights or maximum ingestion rates. Central tendency estimates were used for all exposure assumptions in the ecological risk assessment. No uncertainty factors were used. There are uncertainties in the ecological risk assessment, but actual risks could be greater than or less than the estimates provided in the risk characterization, Text should be modified to specify that "...it is the potentially responsible parties' belief that the cumulative effect of these conservative choices often results in grossly exaggerated estimate..."*

Response:

The Final OU3 RI Report will be modified as requested.

- 9) *Page C-9 (Page C-7 Final Submission): The embedded table contains cell numbers from 1 through 9. The cell numbers have been revised to the 30s, 40s and 50s (see Figure C-9a)*

Response:

The embedded table has been edited to correctly identify the cell numbers shown on Figure C-9a to C-9d.

- 10) *Figure C-1: The symbols on the legend do not correspond to the symbols used on the figure. Please correct.*

Response:

Figure C-1 will be edited to correct the legend symbols.

11) *Figure C-7f is not explained well in the text. The figure shows a cluster of TEG samples with concentrations between 10 and 50 mg/kg and over 50 mg/kg in the northern section of Grid Cell 75. The figure has a shaded overlay across the area of the cluster of higher concentration. The shaded overlay is similar in appearance to the cross-hatch shading used to designate an area that is capped. However, there is no soil cap in the area with the cluster of TEG sample with elevated PCB concentrations in soil. The area is the northern portion of Grid Cell 75 with the cluster of samples from the TEG on-site laboratory appears to have uncertain but potentially elevated PCB concentration. There were two samples that are not from the TEG laboratory on Cell Grid 75. The sample that are not from the TEG laboratory have lower concentrations, but the non-TEG samples are not located near the cluster of TEG samples with the higher concentrations, The uncertainty regarding the concentration of PCBs in Grid Cell 75 should be addressed in the feasibility study. Note that some of the TEG symbols are not color coded to reflect their concentration.*

Response:

The text will be revised in the Final OU3 RI Report to more clearly describe Cell 75 and the conditions exhibited by the TEG sample points within this grid versus results from other laboratories (see indented paragraph below for proposed modified text, using red italicized font to indicate the proposed text editing). The legend in Figure C-7f is misleading in its reference to a cap, which is not applicable to this area of the site; the legend will be corrected to describe the hachured area as the area of an elevated Aroclor-1268 condition reported by the TEG lab results. Sample locations shown in this figure will also be corrected to illustrate their concentration (and the legend will be updated), including a color fill for the non color-coded locations in the previous draft figure.

Figures C-7a through C-7e illustrate the effects of the various data treatment scenarios for Aroclor-1268. In these figures, the arithmetic average Aroclor-1268 concentration in each grid cell is compared with the PCB LOAEL PRG for the short-tailed shrew and long-tailed weasel.<sup>1</sup> As shown in these figures, each successive data treatment scenario results in fewer grid cells that exceed the 2 mg/kg PRG for the short-tailed shrew. The number of exceeding grid cells ranges from 24 cells under Scenario 1, to 14 cells under Scenario 4. Figure C-7f illustrates the influence of elevated results associated with the

---

<sup>C-1</sup> A mammalian TRV for Aroclor-1254 was used as a surrogate to represent the toxicity of Aroclor-1268 in the OU3 BERA. As detailed in the uncertainty section of the OU3 BERA, use of this TRV in the derivation of the Aroclor-1268 PRG, results in a RGO value that is more conservative (i.e., potentially more than 10-times lower) than necessary.

TEG laboratory in grid cell 75 under Scenario 1. Note the majority of the elevated results samples are clustered along the northern boundary of this cell (*highlighted by use of a hachure pattern polygon in Figure C-7f*). Given that there were known quality issues with the TEG laboratory results, there is uncertainty regarding the true areal extent of the Aroclor-1268 concentrations exceeding the ecological PRG for the short-tailed shrew in this cell. *The uncertainty regarding the concentration of PCBs in Grid Cell 75 will be addressed in the forthcoming Feasibility Study Report.*

## Appendix D

12) *Page D-3 (Page D-3 Final Submission): For Quadrant 3, the compound listed should be 1,2,4-trimethylbenzene, rather than 2,4-trimethylbenzene.*

### Response:

The Final OU3 RI Report will be edited as requested.

## Closing

Thank you for the opportunity to provide this information. We look forward to resolving these issues. As always, I can be reached at (973) 722-1656.

Sincerely,



Prashant K. Gupta

## Attachment

cc: Brett Mitchell, Georgia Power  
Paul Taylor, ARCO



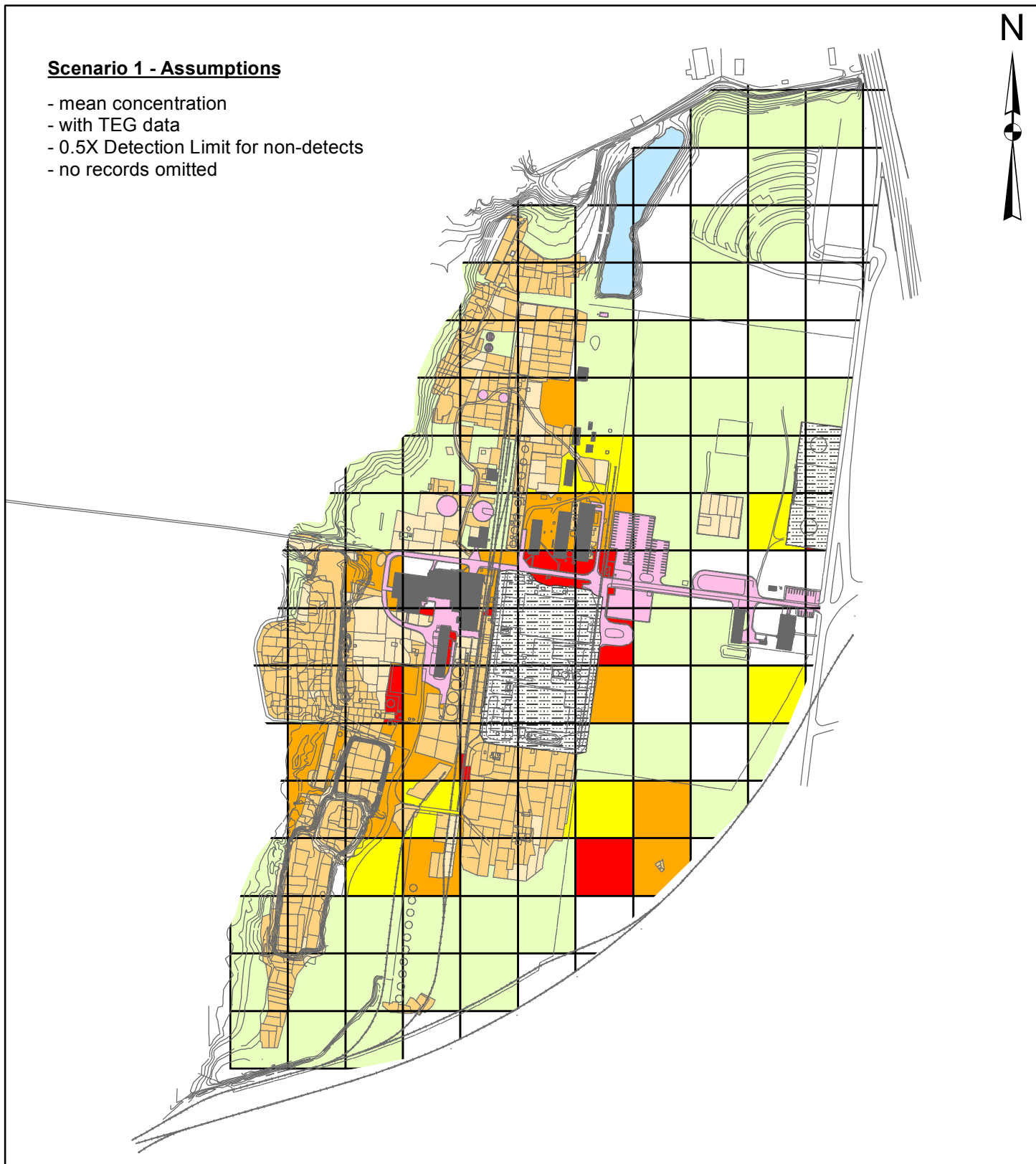
## **Attachment 1**

Example of revised Appendix C figure to show grids

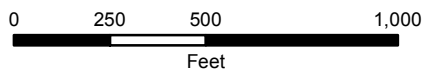
# Scenario 1 Mercury

## Scenario 1 - Assumptions

- mean concentration
- with TEG data
- 0.5X Detection Limit for non-detects
- no records omitted



### Legend



- Site Features
- Buildings
- Freshwater Pond
- Concrete Slabs and Foundations

### 1994-97 Removal Action Areas

- Capped
- < 1 ft backfill
- > 1ft backfill

### Scenario 1 - Mercury

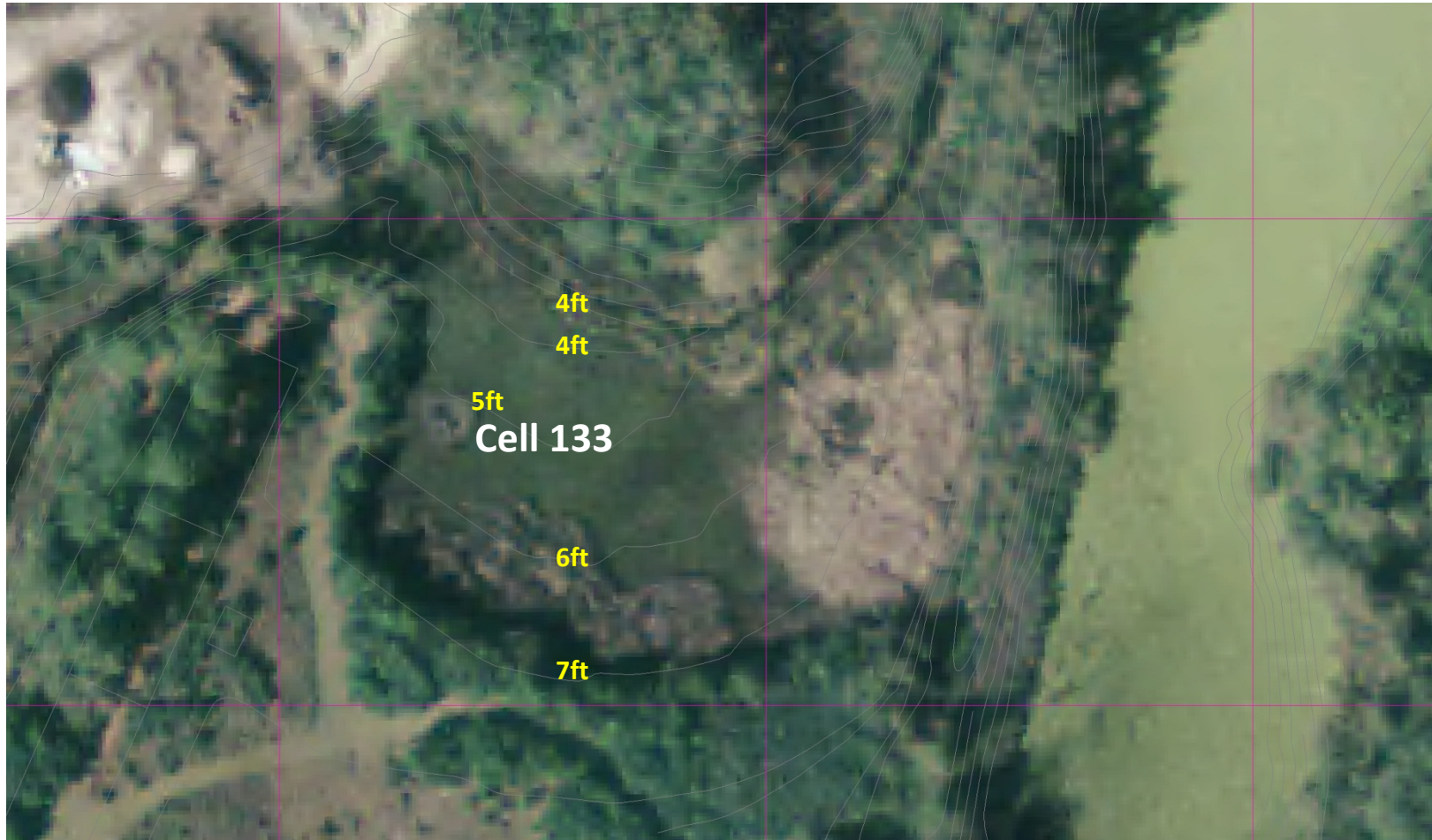
- No data
- < 3 ppm
- 3 - 5 ppm (> shrew LOAEL)

- 5 - 10 ppm (> hawk LOAEL; 100% MeHg)
- 10 - 50 ppm (> hawk LOAEL; 50% MeHg)
- > 50 ppm

## **Attachment 2**

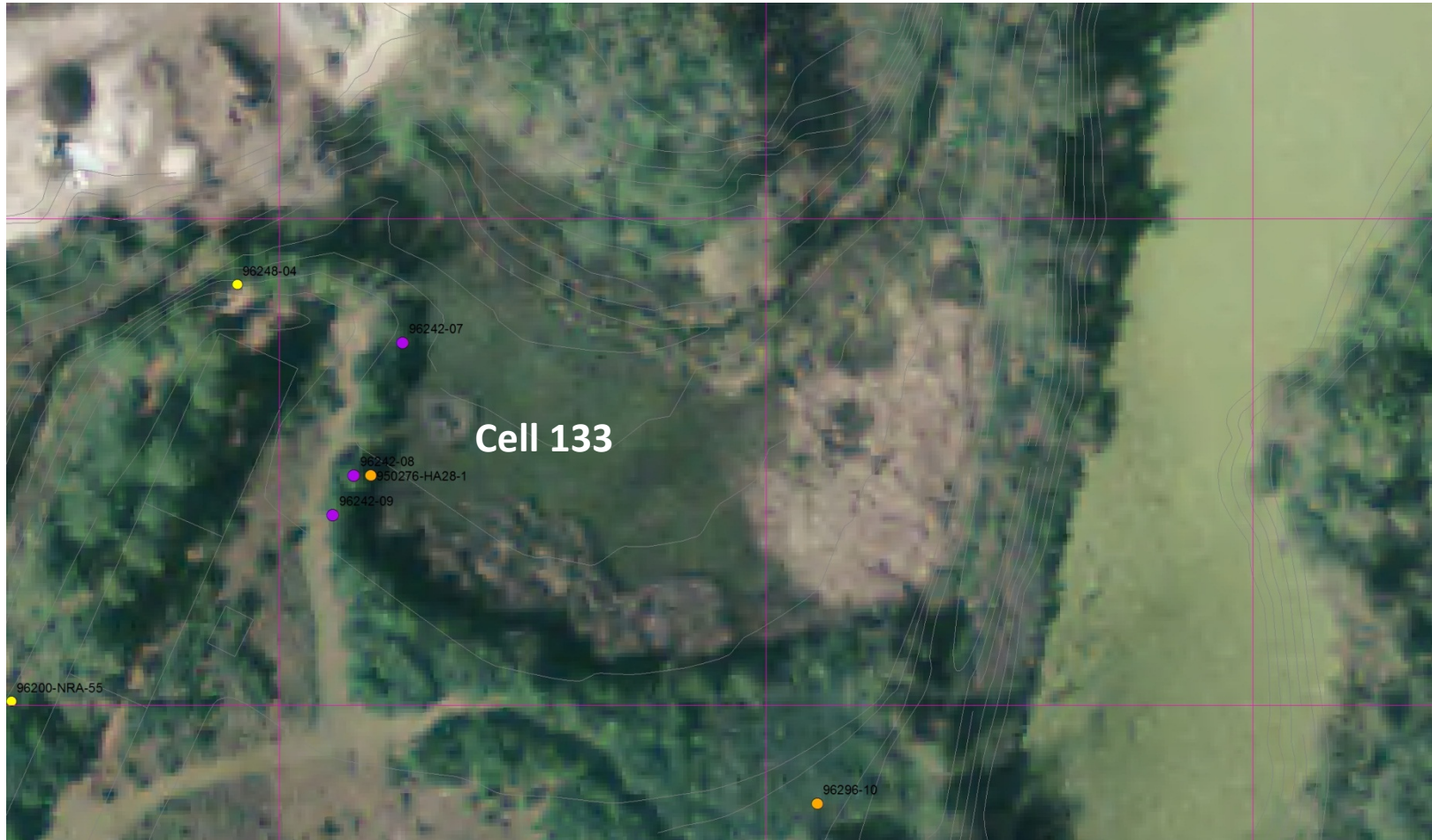
Grid Cell 133

# Aerial photo view of the “Dillon Duck” feature and topographic contours with Grid Cell 133.





# Aerial photo view of the “Dillon Duck” feature and Grid Cell 133 showing soil sampling locations.

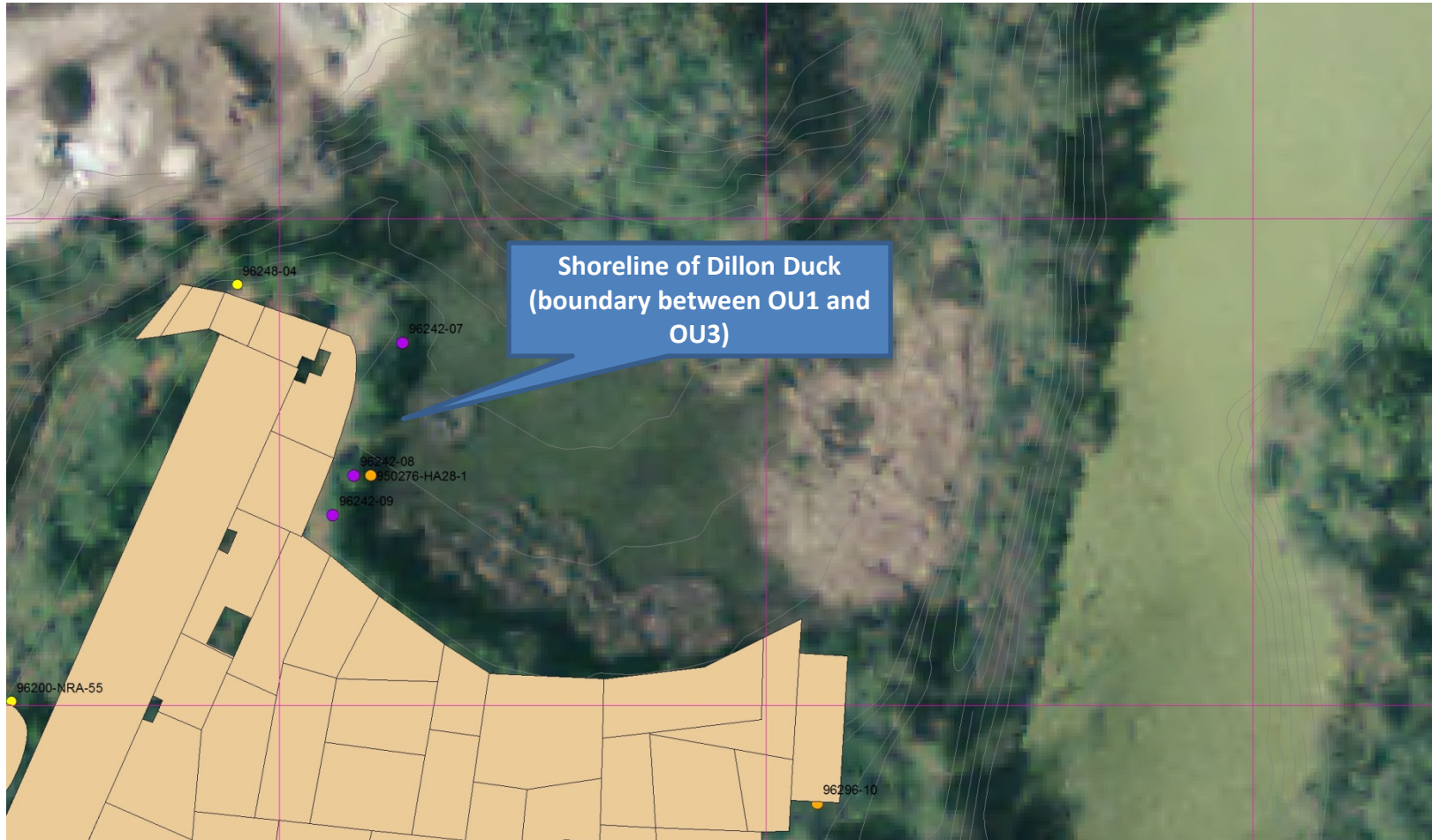


Photos showing concrete rip-rap that was placed along the slope to stabilize the bank as the adjacent uplands removal action was completed. Rip-rap now covers the sampling locations.

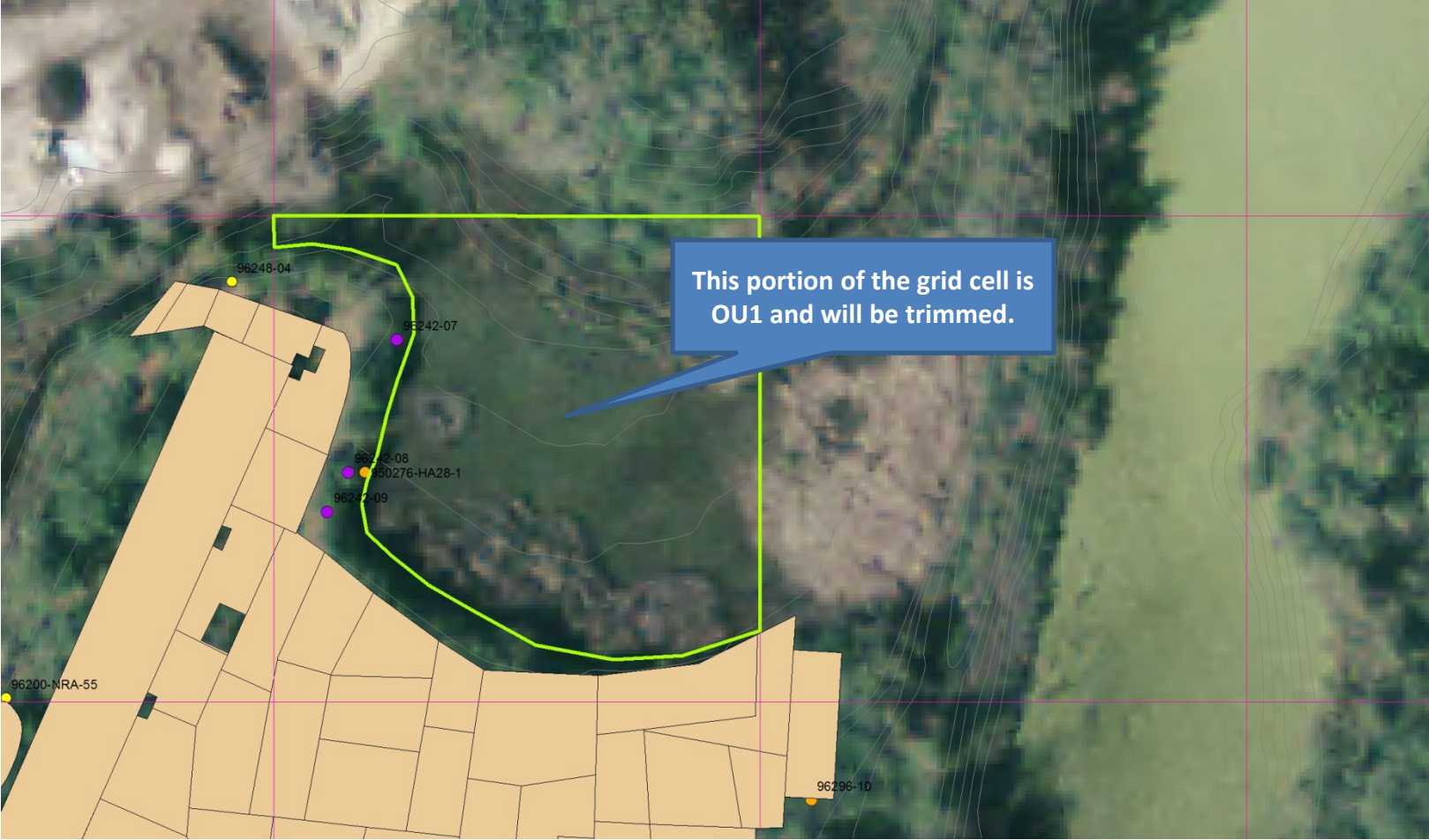




Upland removal action areas (backfill) – note samples were collected at base of slope along “shoreline” of the Dillon Duck.



Area of the "Dillon Duck" feature occupying Cell 133 is outlined in green.





Area of upland showing grid average will be the area bordering the excavation area and the Dillon Duck (orange below).

