EPS
900 Ashwood Parkway
Suite 350
Atlanta, Georgia 30338

(404) 315-9113 *Telephone*
(404) 315-8509 *Fax*

Kirk J. Kessler
Principal

(678) 336-8544 *Direct Line*
kkessler@envplanning.com

April 25, 2011

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: **Honeywell's Response to EPA's Letter Dated April 6, 2011 regarding "Outstanding Issues from OU3 (Uplands) Baseline Human Health Risk Assessment: LCP Chemical Company NPL Site, Brunswick, Georgia"**

Dear Mr. Jackson:

We are in receipt of EPA's letter dated April 6, 2011, regarding the Outstanding Issues from OU3 (Uplands) Baseline Human Health Risk Assessment (HHRA). The letter directs Honeywell to submit revised soil screening tables used to identify Constituents of Potential Concern (COPC) for each exposure unit (EU) that were attached as Exhibits 1 through 5 to Honeywell's April 21, 2010 correspondence related to the OU3 HHRA submitted to EPA on January 4, 2010.

Updated versions of the COPC screening tables are attached to this letter as Exhibits 1A through 5A. Several of the column headers and footnotes have been modified to improve clarity and these tables also incorporate the EPA's November 2010 Regional Screening Levels (RSLs) for residential soil. The RSL values that have changed since the submission of January 2010 HHRA are highlighted. Although there were a total of 53 changes to RSL values, most were relatively minor and the only substantive changes to the identification of COPC was the addition of chromium as a COPC in every EU, the addition of vanadium as a COPC in Quadrant 2, and elimination of 1,3,5-Trimethylbenzene as a COPC in Quadrants 3 and 4.

With respect to chromium, we note that the change to the RSL is based on the use of an oral cancer slope factor (CSF) for hexavalent chromium developed by the state of New Jersey. The EPA's Integrated Risk Information System (IRIS) program is also in the process of conducting a cancer risk assessment for hexavalent chromium, but the methodology and results of this assessment are scientifically controversial and it is unclear when the EPA's assessment will be finalized or what conclusions will be reached. The site analytical data generated to date

report "total chromium" and do no not provide information on the relative proportions of trivalent and hexavalent forms of chromium. Depending on the results of the risk characterization, collection of chromium speciation data may be warranted to evaluate the relative proportions of trivalent and hexavalent forms of chromium.

Exhibits 1B through 5B are secondary tables for each EU that apply the EPA-recommended "screening refinement" elements to the "B-flagged" constituents identified in Exhibits 1A through 5A. These refinement elements include elimination of B-flagged constituents as COPC based on the following criteria:

1. Less than 10% of the data records in an EU with detection limits (DLs) below EPA's "medium" Contract Required Quantitation Limit (CRQL); or
2. Less than 5% of the data records in an EU with DLs exceeding EPA's RSLs for residential soil.[1]

For constituents that remain after the two criteria above are applied, EPA provided three additional refinement criteria that may be used to eliminate COPC. These include:

3. No past use of the constituent at the site;[2]
4. No detections in samples from material that was excavated in the removal action; and 10 or more data records from fixed-based analytical laboratories (*i.e.*, Level IV data) with DLs below EPA's RSL for residential soil.

Honeywell understands that constituents that cannot be eliminated through the application of these screening refinements will be identified as COPC to be addressed qualitatively in the HHRA. The results of the COPC screening process, including the application of the screening refinement elements are discussed below for each EU.

Off-Site Tank Farm (OTF) (Exhibits 1A and 1B)

- 8 constituents were initially identified as COPC based on maximum detected concentrations that exceeded EPA's RSL for residential soil.
- 14 constituents were either not detected or had maximum detected concentrations below the residential RSL, but were evaluated further in the screening refinements because of detection limits that exceeded the RSL. 6 of these 14 constituents were dropped from further consideration based on the application of one or more of the screening refinement criteria.

The 8 constituents remaining after the application of the screening refinement criteria are Aroclors. Several of these Aroclors (*e.g.*, Ar-1232, Ar-1242, and Ar-1248) have never been detetected in samples from the site and were dropped as COPC from all of the other EUs based

[1] RSLs for noncarcinogens were adjusted to a hazard quotient of 0.1 throughout the COPC screening process.

[2] Honeywell has only used this criteria to "screen out" thallium in the analysis presented here, but it reserves the right to investigate this criteria in the future should further action be required for any of the constituents carried into the HHRA as qualitative COPC.

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on one or more of the screening refinement elements. Nevertheless, these 8 Aroclors will be retained as COPC for the OTF EU for qualitative treatment in the HHRA.

Quadrant 1 (Exhibits 2A and 2B)

- 15 constituents were identified as COPC based on maximum detected concentrations that exceeded EPA's RSL for residential soil.
- 24 constituents were either not detected or had maximum detected concentrations below the residential RSL, but were evaluated further in the screening refinements because of detection limits that exceeded the RSL. 19 of these 24 constituents were dropped from further consideration based on the application of one or more of the screening refinement criteria.[3]

The 5 remaining constituents include: 4,6-dinitro-2-methylphenol, bis(2-chloroethyl) ether, hexachlorobenzene, N-nitroso-di-n-propylamine, and pyridine. These constituents will be retained as COPC for the Quadrant 1 EU for qualitative treatment in the HHRA.

Quadrant 2 (Exhibits 3A and 3B)

- 16 constituents were identified as COPC based on maximum detected concentrations that exceeded EPA's RSL for residential soil.
- 15 constituents were either not detected or had maximum detected concentrations below the residential RSL, but were evaluated further in the screening refinements because of detection limits that exceeded the RSL. All 15 of these constituents were dropped from further consideration based on the application of one or more of the screening refinement criteria.

Quadrant 3

- 33 constituents were identified as COPC based on maximum detected concentrations that exceeded EPA's RSL for residential soil.
- 52 constituents were either not detected or had maximum detected concentrations below the residential RSL, but were evaluated further in the screening refinements because of detection limits that exceeded the RSL. 51 of these 52 constituents were dropped from further consideration based on the application of one or more of the screening refinement criteria.

The remaining constituent, 1,1-Dichloropropene, will be retained as COPC for the Quadrant 3 EU for qualitative treatment in the HHRA.

[3] One of the 19 constituents is thallium, which occurs naturally in soil, had a low number of true detects in any given EU, and is not known to have been used at the site. In addition, the RSL used for COPC screening was removed from the EPA's RSL tables as of the December 2009 edition because the oral reference dose (Rfd) was withdrawn from the IRIS database based on EPA's determination that the available data "are not adequate to develop an RfD." Based on these factors, thallium was dropped from further consideration in the HHRA.

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Quadrant 4

- 27 constituents were identified as COPC based on maximum detected concentrations that exceeded EPA's RSL for residential soil.
- 35 constituents were either not detected or had maximum detected concentrations below the residential RSL, but were evaluated further in the screening refinements because of detection limits that exceeded the RSL. All 35 of these constituents were dropped from further consideration based on the application of one or more of the screening refinement criteria.

Summary

Thank you for the opportunity to provide EPA with this set of updated COPC screening tables. We look forward to finalizing the list of COPC and moving forward to complete the HHRA Report for OU#3. As always, please do not hesitate to contact me at (678) 336-8544 if you have any questions.

Sincerely,

Kirk Kessler

Enclosures

Exhibit 1A
Revised COPC Screening - OTF
(Originally Table 4.1 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
Arsenic	2	3	1	3	1.3	**1.7**	1	1	67	100	0.39	c	Y	**0.39**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	7	27	20	27	0.026	**0.92**	0.33	0.39	26	100	0.15	c	Y	**0.15**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	6	27	21	27	0.029	**1.37**	0.33	0.39	22	100	0.015	c	Y	**0.015**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	6	27	21	27	0.051	**2.18**	0.33	0.39	22	100	0.15	c	Y	**0.15**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Chromium	3	3	0	3	1.7	**5**	0.1099	0.11	100	100	0.29	c	Y	**0.29**	**Y**	N	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	2	27	25	27	0.05	**0.32**	0.33	0.39	7	100	0.015	c	Y	**0.015**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Lead	12	12	0	27	11.8	**3155**	11	13	44	44	400	n	Y	**400**	**Y**	N	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Mercury	3	26	23	27	0.0909	**1.67**	0.054	0.39	11	96	5.6	n	N	**0.56**	**Y**	N	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Exhibit 1B)																			
Indeno(1,2,3-cd)pyrene	2	27	25	27	0.098	**0.11**	0.31	**0.39**	7	100	0.15	c	N	**0.15**	N	Y	No	B	Drop - <10% DL > CRQL
Aroclor-1268	1	25	24	27	0.21	**0.21**	0.035	**2.6**	4	93	0.22	c	N	**0.22**	N	Y	No	B	Drop - <10% DL > CRQL
4,6-Dinitro-2-methylphenol	0	3	3	3			0.88	**0.93**	0	100	4.9	n	N	**0.49**	N	Y	No	B	Drop - <10% DL > CRQL
bis(2-Chloroethyl) ether	0	3	3	3			0.35	**0.37**	0	100	0.21	c	N	**0.21**	N	Y	No	B	Drop - <10% DL > CRQL
N-Nitroso-di-n-propylamine	0	3	3	3			0.35	**0.37**	0	100	0.069	c	N	**0.069**	N	Y	No	B	Drop - <10% DL > CRQL
Thallium	0	3	3	3			0.96	**1**	0	100	5.1	n	N	**0.51**	N	Y	No	B, T	Drop - <10% DL > CRQL
Aroclor-1016	0	24	24	27			0.035	**2.6**	0	89	3.9	n	N	**0.39**	N	Y	Yes	B, Q	Retain as Qualatative COPC
Aroclor-1221	0	24	24	27			0.071	**2.6**	0	89	0.14	c	N	**0.14**	N	Y	Yes	B, Q	Retain as Qualatative COPC
Aroclor-1232	0	24	24	27			0.035	**2.6**	0	89	0.14	c	N	**0.14**	N	Y	Yes	B, Q	Retain as Qualatative COPC
Aroclor-1242	0	24	24	27			0.035	**2.6**	0	89	0.22	c	N	**0.22**	N	Y	Yes	B, Q	Retain as Qualatative COPC
Aroclor-1248	0	24	24	27			0.035	**2.6**	0	89	0.22	c	N	**0.22**	N	Y	Yes	B, Q	Retain as Qualatative COPC
Aroclor-1254	0	24	24	27			0.035	**2.6**	0	89	0.22	c	N	**0.22**	N	Y	Yes	B, Q	Retain as Qualatative COPC
Aroclor-1260	0	24	24	27			0.035	**2.6**	0	89	0.22	c	N	**0.22**	N	Y	Yes	B, Q	Retain as Qualatative COPC
Pentachlorophenol	0	1	1	3			0.88	**0.93**	0	33	0.89	c	N	**0.89**	N	Y	No	B	Drop - <10% DL > CRQL
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
Endrin ketone	3	3		3	0.0044	**0.0073**	0.0035	**0.0037**	100	100	18	n	N	**1.8**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
alpha-Chlordane	1	1		3	0.0015	**0.0015**	0.0018	**0.0019**	33	33	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan I	1	1		3	0.00018	**0.00018**	0.0018	**0.0019**	33	33	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan sulfate	1	1		3	0.0016	**0.0016**	0.0035	**0.0037**	33	33	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	1	1		3	0.0019	**0.0019**	0.0018	**0.0019**	33	33	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	4	4		27	0.13	**1.35**	0.33	**0.39**	15	15	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Propylbenzene	3	3		24	0.05999	**0.17**	0.05	**0.07**	13	13	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Phenanthrene	3	3		27	0.026	**0.079**	0.31	**0.39**	11	11	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Butylbenzene	1	1		24	0.14	**0.14**	0.05	**0.07**	4	4	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	1	1		24	0.17	**0.17**	0.05	**0.07**	4	4	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	1	1		27	0.42	**0.42**	0.31	**0.39**	4	4	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
1,3-Dichlorobenzene	0	0		27			0.05	**0.37**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2-Nitrophenol	0	0		3			0.35	**0.37**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
3-Nitroaniline	0	0		3			0.88	**0.93**	0	0	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Chlorophenyl-phenylether	0	0		3			0.35	**0.37**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Nitrophenol	0	0		3			0.88	**0.93**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
cis-1,3-Dichloropropene	0	0		27			0.011	**0.07**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
delta-BHC	0	0		3			0.0018	**0.0019**	0	0	0.077	c	N	**0.077**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Dibenzofuran	0	0		3			0.35	**0.37**	0	0	78	n	N	**7.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endrin aldehyde	0	0		3			0.0035	**0.0037**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
sec-Butylbenzene	0	0		24			0.05	**0.07**	0	0	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
tert-Butylbenzene	0	0		24			0.05	**0.07**	0	0	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
trans-1,3-Dichloropropene	0	0		27			0.011	**0.07**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL

Exhibit 1A
Revised COPC Screening - OTF
(Originally Table 4.1 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Constituents Screened Out on Basis of Low Frequency of Detection																			
1,1,1-Trichloroethane	0	0		27			0.011	**0.07**	0	0	8700	n	N	**870**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2,2-Tetrachloroethane	0	0		27			0.011	**0.07**	0	0	0.56	c	N	**0.56**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2-Trichloroethane	0	0		27			0.011	**0.07**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethane	0	0		27			0.011	**0.07**	0	0	3.3	c	N	**3.3**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethene	0	0		27			0.011	**0.07**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,4-Trichlorobenzene	0	0		3			0.35	**0.37**	0	0	22	c	N	**22**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichlorobenzene	0	0		27			0.05	**0.37**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloroethane	0	0		27			0.011	**0.07**	0	0	0.43	c	N	**0.43**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloropropane	0	0		27			0.011	**0.07**	0	0	0.89	c	N	**0.89**	N	N	No	C	Drop - No Detects and All DL < RSL
1,3,5-Trimethylbenzene	0	0		24			0.05	**0.07**	0	0	780	n	N	**78**	N	N	No	C	Drop - No Detects and All DL < RSL
1,4-Dichlorobenzene	0	0		27			0.05	**0.37**	0	0	2.4	c	N	**2.4**	N	N	No	C	Drop - No Detects and All DL < RSL
1-Methyl Naphthalene	0	0		24			0.31	**0.39**	0	0	22	c	N	**22**	N	N	No	C	Drop - No Detects and All DL < RSL
2,2'-Oxybis(1-Chloropropane)	0	0		3			0.35	**0.37**	0	0							No	F	Drop - No Detects and No RSL
2,4,5-Trichlorophenol	0	0		3			0.88	**0.93**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,6-Trichlorophenol	0	0		3			0.35	**0.37**	0	0	44	c	N	**44**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dichlorophenol	0	0		3			0.35	**0.37**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dimethylphenol	0	0		3			0.35	**0.37**	0	0	1200	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dinitrophenol	0	0		3			0.88	**0.93**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dinitrotoluene	0	0	0	3			0.35	**0.37**	0	0	1.6	c	N	**1.6**	N	N	No	C	Drop - No Detects and All DL < RSL
2,6-Dinitrotoluene	0	0		3			0.35	**0.37**	0	0	61	n	N	**6.1**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Butanone (MEK)	0	0		3			0.011	**0.011**	0	0	28000	n	N	**2800**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloroethyl vinyl ether	0	0		24			0.05	**0.07**	0	0				**0**			No	F	Drop - No Detects and No RSL
2-Chloronaphthalene	0	0		3			0.35	**0.37**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorophenol	0	0		3			0.35	**0.37**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Hexanone	0	0		3			0.011	**0.011**	0	0	210	n	N	**21**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Methylphenol	0	0		3			0.35	**0.37**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Nitroaniline	0	0		3			0.88	**0.93**	0	0	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
3,3'-Dichlorobenzidine	0	0		3			0.35	**0.37**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		3			0.35	**0.37**	0	0							No	C	Drop - No Detects and No RSL
4-Chloroaniline	0	0		3			0.35	**0.37**	0	0	2.4	c	N	**2.4**	N	N	No	F	Drop - No Detects and All DL < RSL
4-Chloro-3-methylphenol	0	0		3			0.35	**0.37**	0	0	6100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methyl-2-pentanone	0	0		3			0.011	**0.011**	0	0	5300	n	N	**530**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	0	0		3			0.35	**0.37**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Nitroaniline	0	0		3			0.88	**0.93**	0	0	24	c	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
Acenaphthene	0	0		27			0.31	**0.39**	0	0	3400	n	N	**340**	N	N	No	C	Drop - No Detects and All DL < RSL
Acetone	0	0		3			0.011	**0.011**	0	0	61000	n	N	**6100**	N	N	No	C	Drop - No Detects and All DL < RSL
alpha-BHC	0	0		3			0.0018	**0.0019**	0	0	0.077	c	N	**0.077**	N	N	No	C	Drop - No Detects and All DL < RSL
Benzene	0	0		27			0.011	**0.07**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
Beryllium	0	0		3			0.17	**0.18**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
beta-BHC	0	0		3			0.0018	**0.0019**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
bis(2-Chloroethoxy) methane	0	0		3			0.35	**0.37**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromodichloromethane	0	0		27			0.011	**0.07**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromoform	0	0		27			0.011	**0.07**	0	0	61	c	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromomethane	0	0		27			0.011	**0.07**	0	0	7.3	n	N	**0.73**	N	N	No	C	Drop - No Detects and All DL < RSL
Butylbenzylphthalate	0	0		3			0.35	**0.37**	0	0	260	c	N	**260**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbazole	0	0		3			0.35	**0.37**	0	0							No	F	Drop - No Detects and No RSL
Carbon disulfide	0	0		3			0.011	**0.011**	0	0	820	n	N	**82**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbon tetrachloride	0	0		27			0.011	**0.07**	0	0	0.61	c	N	**0.61**	N	N	No	C	Drop - No Detects and All DL < RSL
Chlorobenzene	0	0		27			0.011	**0.07**	0	0	290	n	N	**29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroethane	0	0		27			0.011	**0.07**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroform	0	0		27			0.011	**0.07**	0	0	0.29	c	N	**0.29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloromethane	0	0		27			0.011	**0.07**	0	0	120	c	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		3			0.011	**0.011**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		24			0.05	**0.07**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyanide	0	0		3			0.04	**0.04**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromochloromethane	0	0		27			0.011	**0.07**	0	0	0.68	c	N	**0.68**	N	N	No	C	Drop - No Detects and All DL < RSL

Exhibit 1A
Revised COPC Screening - OTF
(Originally Table 4.1 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Dichlorodifluoromethane	0	0		24			0.05	**0.07**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	0	0		3			0.35	**0.37**	0	0	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Dimethylphthalate	0	0		3			0.35	**0.37**	0	0							No	F	Drop - No Detects and No RSL
Di-n-octylphthalate	0	0		3			0.35	**0.37**	0	0							No	F	Drop - No Detects and No RSL
Fluorene	0	0		27			0.31	**0.39**	0	0	2300	n	N	**230**	N	N	No	C	Drop - No Detects and All DL < RSL
gamma-BHC (Lindane)	0	0		3			0.0018	**0.0019**	0	0	0.52	n	N	**0.052**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor	0	0		3			0.0018	**0.0019**	0	0	0.11	c	N	**0.11**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorobenzene	0	0		3			0.35	**0.37**	0	0	0.3	c	N	**0.3**	N	Y	No	C	Drop - No Detects and All DL < RSL
Hexachlorobutadiene	0	0		3			0.35	**0.37**	0	0	6.2	n	N	**0.62**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorocyclopentadiene	0	0		3			0.35	**0.37**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachloroethane	0	0		3			0.35	**0.37**	0	0	35	n	N	**3.5**	N	N	No	C	Drop - No Detects and All DL < RSL
Isophorone	0	0		3			0.35	**0.37**	0	0	510	n	N	**51**	N	N	No	C	Drop - No Detects and All DL < RSL
Isopropylbenzene	0	0		24			0.05	**0.07**	0	0	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < RSL
m&p-Xylene	0	0		24			0.05	**0.07**	0	0	3400	n	N	**340**	N	N	No	C	Drop - No Detects and All DL < RSL
Naphthalene	0	0		27			0.31	**0.39**	0	0	3.6	c	N	**3.6**	N	N	No	C	Drop - No Detects and All DL < RSL
Nitrobenzene	0	0		3			0.35	**0.37**	0	0	4.8	c	N	**4.8**	N	N	No	C	Drop - No Detects and All DL < RSL
N-Nitrosodiphenylamine/Diphenylamine	0	0		3			0.35	**0.37**	0	0	99	c	N	**99**	N	N	No	C	Drop - No Detects and All DL < RSL
o-Xylene	0	0		24			0.05	**0.07**	0	0	3800	n	N	**380**	N	N	No	C	Drop - No Detects and All DL < RSL
Phenol	0	0		3			0.35	**0.37**	0	0	18000	n	N	**1800**	N	N	No	C	Drop - No Detects and All DL < RSL
Silver	0	0		3			0.49	**0.52**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
Styrene	0	0		27			0.011	**0.07**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
Tetrachloroethene	0	0		27			0.011	**0.07**	0	0	0.55	c	N	**0.55**	N	N	No	C	Drop - No Detects and All DL < RSL
Toxaphene	0	0		3			0.18	**0.19**	0	0	0.44	c	N	**0.44**	N	N	No	C	Drop - No Detects and All DL < RSL
trans-1,2-Dichloroethene	0	0		24			0.05	**0.07**	0	0	110	n	N	**11**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichloroethene	0	0		27			0.011	**0.07**	0	0	2.8	c	N	**2.8**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		24			0.05	**0.07**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Vinyl chloride	0	1	1	27			0.011	**0.07**	0	4	0.06	c	N	**0.06**	N	Y	No	C	Drop - No Detects and All DL < RSL
Xylenes (unspecified)	0	0		3			0.011	**0.011**	0	0	630	n	N	**63**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	3	3		3	441	11500			100	100							No	E	Drop - Essential Nutrient
Magnesium	3	3		3	34.8	699			100	100							No	E	Drop - Essential Nutrient
Potassium	3	3		3	174	344			100	100							No	E	Drop - Essential Nutrient
Sodium	3	3		3	123	160			100	100							No	E	Drop - Essential Nutrient
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
4,4'-DDD	3	3		3	0.00075	**0.0016**	0.0035	**0.0037**	100	100	2	c	N	**2**	N	N		G	Drop - Max Detect and DL < RSL
Aluminum	3	3		3	1520	**2480**	9.5	**9.9**	100	100	77000	n	N	**7700**	N	N		G	Drop - Max Detect and DL < RSL
Copper	3	3		3	2.1	**21.8**	0.2099	**0.2199**	100	100	3100	n	N	**310**	N	N		G	Drop - Max Detect and DL < RSL
Iron	3	3		3	425	**2700**	1	**1.1**	100	100	55000	n	N	**5500**	N	N		G	Drop - Max Detect and DL < RSL
Manganese	3	3		3	3.5	**46.7**	0.09	**0.09**	100	100	1800	n	N	**180**	N	N		G	Drop - Max Detect and DL < RSL
Nickel	3	3		3	0.25	**2.1**	0.2099	**0.2199**	100	100	1500	n	N	**150**	N	N		G	Drop - Max Detect and DL < RSL
Vanadium	3	3		3	2	**5.7**	0.189	**0.2**	100	100	390	n	N	**39**	N	N		G	Drop - Max Detect and DL < RSL
Zinc	3	3		3	5.9	**69.2**	0.239	**0.25**	100	100	23000	n	N	**2300**	N	N		G	Drop - Max Detect and DL < RSL
4,4'-DDE	2	2		3	0.00032	**0.0018**	0.0035	**0.0035**	67	67	1.4	c	N	**1.4**	N	N		G	Drop - Max Detect and DL < RSL
4,4'-DDT	2	2		3	0.0026	**0.0036**	0.0035	**0.0035**	67	67	1.7	c	N	**1.7**	N	N		G	Drop - Max Detect and DL < RSL
Aldrin	2	2		3	0.0011	**0.0015**	0.0018	**0.0018**	67	67	0.029	c	N	**0.029**	N	N		G	Drop - Max Detect and DL < RSL
bis(2-Ethylhexyl) phthalate	2	2		3	0.021	**0.026**	0.35	**0.35**	67	67	35	c	N	**35**	N	N		G	Drop - Max Detect and DL < RSL
Cobalt	2	2		3	0.3	**0.58999**	0.10999	**0.11**	67	67	23	n	N	**2.3**	N	N		G	Drop - Max Detect and DL < RSL
Dieldrin	2	2		3	0.00093	**0.0014**	0.0035	**0.0035**	67	67	0.03	c	N	**0.03**	N	N		G	Drop - Max Detect and DL < RSL
Methoxychlor	2	2		3	0.0067	**0.014**	0.018	**0.018**	67	67	310	n	N	**31**	N	N		G	Drop - Max Detect and DL < RSL
Antimony	1	1		3	1.6	**1.6**	1.3	**1.3**	33	33	31	n	N	**3.1**	N	N		G	Drop - Max Detect and DL < RSL
Cadmium	1	1		3	0.2	**0.2**	0.11	**0.11**	33	33	70	n	N	**7**	N	N		G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	1	1		3	0.052	**0.052**	0.35	**0.35**	33	33	6100	n	N	**610**	N	N		G	Drop - Max Detect and DL < RSL
Endrin	1	1		3	0.0023	**0.0023**	0.0035	**0.0037**	33	33	18	n	N	**1.8**	N	N		G	Drop - Max Detect and DL < RSL
Heptachlor epoxide	1	1		3	0.00028	**0.00028**	0.0018	**0.0019**	33	33	0.053	c	N	**0.053**	N	N		G	Drop - Max Detect and DL < RSL
Selenium	1	1		3	1.4	**1.4**	1.1	**1.1**	33	33	390	n	N	**39**	N	N		G	Drop - Max Detect and DL < RSL
Benzo(k)fluoranthene	6	6		27	0.088	**1.47**	0.33	**0.39**	22	22	1.5	c	N	**1.5**	N	N		G	Drop - Max Detect and DL < RSL
Chrysene	4	4		27	0.041	**1.76**	0.33	**0.39**	15	15	15	c	N	**15**	N	N		G	Drop - Max Detect and DL < RSL

Exhibit 1A
Revised COPC Screening - OTF
(Originally Table 4.1 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL (1) (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Pyrene	4	4		27	0.084	**2.25**	0.33	**0.39**	15	15	1700	n	N	**170**	N	N		G	Drop - Max Detect and DL < RSL
Barium	3	3		27	5.6	**24**	51.7	**65.1**	11	11	15000	n	N	**1500**	N	N		G	Drop - Max Detect and DL < RSL
Fluoranthene	3	3		27	0.11	**0.53**	0.33	**0.39**	11	11	2300	n	N	**230**	N	N		G	Drop - Max Detect and DL < RSL
1,2,4-Trimethylbenzene	1	1		24	0.09	**0.09**	0.05	**0.07**	4	4	62	n	N	**6.2**	N	N		G	Drop - Max Detect and DL < RSL
2-Methylnaphthalene	1	1		27	0.023	**0.023**	0.31	**0.39**	4	4	310	n	N	**31**	N	N		G	Drop - Max Detect and DL < RSL
Anthracene	1	1		27	0.44	**0.44**	0.31	**0.39**	4	4	17000	n	N	**1700**	N	N		G	Drop - Max Detect and DL < RSL
Dichloromethane (Methylene chloride)	1	1		27	0.002	**0.002**	0.011	**0.07**	4	4	11	c	N	**11**	N	N		G	Drop - Max Detect and DL < RSL
Ethyl benzene	1	1		27	0.13	**0.13**	0.011	**0.07**	4	4	5.4	c	N	**5.4**	N	N		G	Drop - Max Detect and DL < RSL
Toluene	1	1		27	0.13	**0.13**	0.011	**0.07**	4	4	5000	n	N	**500**	N	N		G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs.
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.

Highlighted Cells Key:
Frequency Detection < 5%
Constituent without RSL - Surrogate Chemical Identified
Change to RSL between April 2009 and November 2010

COPC screening code (from HHBRA):
A Low record count <10 site wide
B DLs above adjusted residential RSL
C Less than 5% detection frequency including DLs above adjusted RSL
D Parameter with N flag
E Essential nutrient
F Less than 5% detection frequency and no RSL
G Max detect and max DL below adjusted residential RSL
T Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
Y Retain as COPC

Exhibit 1B
Screening Refinements for "B" Flagged Parameters - OTF

Parameter	CRQL Medium[1] (mg/kg)	Residential RSL [2] (mg/kg)	# DL above CRQL	% DL above CRQL [3]	# DL above RSL	% DL above RSL [4]	# Level 4 data records	# Level 4 data DL below RSL [5]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
4,6-Dinitro-2-methylphenol	10	0.49	0	0	3	100					Drop - <10% DL > CRQL
Aroclor-1016	0.033	0.39	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1221	0.033	0.14	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1232	0.033	0.14	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1242	0.033	0.22	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1248	0.033	0.22	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1254	0.033	0.22	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1260	0.033	0.22	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1268	0.033	0.22	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
bis(2-Chloroethyl) ether	5	0.21	0	0	3	100					Drop - <10% DL > CRQL
Indeno(1,2,3-cd)pyrene	5	0.15	0	0	27	100					Drop - <10% DL > CRQL
N-Nitroso-di-n-propylamine	5	0.069	0	0	3	100					Drop - <10% DL > CRQL
Pentachlorophenol	10	0.89	0	0	1	33					Drop - <10% DL > CRQL
Thallium	2.5	0.51	0	0	3	100					Drop - <10% DL > CRQL

Notes:

(1) Values are the EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQL).

(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.1.

(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQLs.

(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSLs.

(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL.

Exhibit 2A
Revised COPC Screening - Quad 1
(Originally Table 4.2 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
Aroclor-1260	4	29	25	60	0.24	**0.9**	0.0017	2.5	7	48	0.22	c	Y	**0.22**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1268	13	37	24	38	0.019	**0.57**	0.035	2.5	34	97	0.22	c	Y	**0.22**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
Arsenic	9	30	21	30	0.27	**3.5**	1.5	4	30	100	0.39	c	Y	**0.39**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	15	67	52	68	0.0017	**1.3**	0.00048	13	22	99	0.15	c	Y	**0.15**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	15	68	53	68	0.0018	**1.3**	0.31999	13	22	100	0.015	c	Y	**0.015**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	7	26	19	27	0.0036	**0.69**	0.00025	0.68	26	96	0.15	c	Y	**0.15**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b/k)fluoranthene	9	41	32	41	0.068	**1.6**	0.35	13	22	100	0.15	c	Y	**0.15**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
bis(2-Ethylhexyl) phthalate	3	3	0	42	0.53	**46**	0.35	13	7	7	35	c	Y	**35**	Y	N	YES	Y	**Retain as COPC** - Max Detect > RSL
Chromium	30	30	0	30	1.74	**17**	0.11	0.24	73	100	0.29	c	Y	**0.29**	Y	N	YES		**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	5	57	52	68	0.00066	**0.068**	0.00028	13	9	84	0.015	c	Y	**0.015**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
Indeno(1,2,3-cd)pyrene	12	68	56	68	0.0022	**0.24**	0.32	13	16	100	0.15	c	Y	**0.15**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
Iron	30	30	0	30	797	**26000**	1.1	2.3	83	100	55000	n	N	**5500**	Y	N	YES	Y	**Retain as COPC** - Max Detect > RSL
Lead	55	58	3	80	0.61	**516**	3	60	66	73	400	n	Y	**400**	Y	N	YES	Y	**Retain as COPC** - Max Detect > RSL
Mercury	52	67	15	80	0.0289	**38**	0.11	0.63	56	84	5.6	n	Y	**0.56**	Y	Y	YES	Y	**Retain as COPC** - Max Detect > RSL
Vanadium	17	17	0	34	2.11	**43**	3	9	47	50	390	n	N	**39**	Y	N	YES	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Exhibit 2B)																			
Aroclor-1254	9	33	24	60	0.012	**0.13**	0.0017	**2.5**	15	55	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Dibenzofuran	6	19	13	49	0.00046	**0.012**	0.00059	**13**	12	39	78	n	N	**7.8**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
Naphthalene	8	27	19	68	0.001	**0.89**	0.32	**13**	12	40	3.6	c	N	**3.6**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Thallium	3	30	27	30	0.01499	**0.024**	0.97	**10**	10	100	5.1	n	N	**0.51**	N	Y	No	T	Drop - not used at site, withdrawn RSL
bis(2-Chloroethyl) ether	0	42	42	42			0.35	**13**	0	100	0.21	c	N	**0.21**	N	Y	YES	B, Q	Retain as Qualatative COPC
Hexachlorobenzene	0	42	42	42			0.35	**13**	0	100	0.3	c	N	**0.3**	N	Y	YES	B, Q	Retain as Qualatative COPC
N-Nitroso-di-n-propylamine	0	42	42	42			0.35	**13**	0	100	0.069	c	N	**0.069**	N	Y	YES	B, Q	Retain as Qualatative COPC
Pyridine	0	1	1	1			8.3	**8.3**	0	100	78	n	N	**7.8**	N	Y	YES	B, Q, A	Retain as Qualatative COPC
Pentachlorophenol	0	25	25	42			0.84	**26**	0	60	0.89	c	N	**0.89**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,4-Dinitrotoluene	0	19	19	42			0.35	**13**	0	45	1.6	c	N	**1.6**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2-Nitroaniline	0	19	19	42			0.84	**13**	0	45	610	n	N	**61**	N	N	No	B	Drop - <10% DL > CRQL
3,3'-Dichlorobenzidine	0	19	19	42			0.35	**13**	0	45	1.1	c	N	**1.1**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
4,6-Dinitro-2-methylphenol	0	19	19	42			0.84	**26**	0	45	4.9	n	N	**0.49**	N	Y	YES	B, Q	Retain as Qualatative COPC
4-Chloroaniline	0	19	19	42			0.35	**13**	0	45	2.4	c	N	**2.4**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Nitrobenzene	0	19	19	42			0.35	**13**	0	45	4.8	c	N	**4.8**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,4-Dinitrophenol	0	17	17	42			0.84	**26**	0	40	120	n	N	**12**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,6-Dinitrotoluene	0	17	17	42			0.35	**13**	0	40	61	n	N	**6.1**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1016	0	24	24	60			0.0017	**2.5**	0	40	3.9	n	N	**0.39**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1221	0	24	24	60			0.0017	**2.5**	0	40	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1232	0	24	24	60			0.0017	**2.5**	0	40	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1242	0	24	24	60			0.0017	**2.5**	0	40	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1248	0	24	24	60			0.0017	**2.5**	0	40	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Hexachlorobutadiene	0	17	17	45			0.00018	**13**	0	38	6.2	c	N	**6.2**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2,3-Trichloropropane	0	1	1	10			0.00028	**0.098**	0	10	0.005	c	N	**0.005**	N	Y	YES	B, Q	Retain as Qualatative COPC
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
Phenanthrene	18	18		68	0.003	**2.3**	0.32	**13**	24	26	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	13	13		68	0.0037	**0.49**	0.32	**13**	19	19	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
alpha-Chlordane	3	3		26	0.00032	**0.00085**	0.00057	**0.007**	12	12	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	2	2		20	0.0052	**0.42**	0.00008	**0.06**	10	10	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
sec-Butylbenzene	2	2		20	0.1	**0.67**	0.00006	**0.06**	10	10	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	6	6		68	0.00016	**0.011**	0.00024	**13**	9	9	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	2	2		26	0.0003	**0.00092**	0.00052	**0.008**	8	8	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Butylbenzene	1	1		20	0.25999	**0.26**	0.00009	**0.06**	5	5	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Propylbenzene	1	1		20	0.33	**0.33**	0.00006	**0.06**	5	5	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
delta-BHC	1	1		26	0.00035	**0.00035**	0.00043	**0.0022**	4	4	0.077	c	N	**0.077**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan I	1	1		26	0.00055	**0.00055**	0.00037	**0.0022**	4	4	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan sulfate	1	1		26	0.023	**0.023**	0.00064	**0.00419**	4	4	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endrin aldehyde	1	1		26	0.031	**0.031**	0.00069	**0.009**	4	4	18	n	N	**1.8**	N	N	No	C	Drop - Max Detect and DL < Surrogate RSL
3-Nitroaniline	0	19	19	42			0.84	**13**	0	45	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2-Nitrophenol	0	1	1	42			0.35	**13**	0	2	120	n	N	**120**	N	N	No	C	Drop - Max Detect and 5% DL< Surrogate RSL
1,1-Dichloropropene	0	0		10			0.00016	**0.098**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
1,3-Dichlorobenzene	0	0		50			0.00007	**0.42**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2,2-Dichloropropane	0	0		10			0.00011	**0.098**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL

Exhibit 2A
Revised COPC Screening - Quad 1
(Originally Table 4.2 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
3/4-Methylphenol	0	0		41			0.35	**13**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Chlorophenyl-phenylether	0	0		42			0.35	**13**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Nitrophenol	0	0	0	19			0.89	**1**	0	0	120	n	N	**12**	N	N	No	B	Drop - No Detects and All DL < Surrogate RSL
Bromochloromethane	0	0		10			0.00027	**0.098**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
cis-1,3-Dichloropropene	0	0		50			0.00003	**0.098**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan II	0	0		26			0.00033	**0.008**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endrin ketone	0	0		26			0.00009	**0.03**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
tert-Butylbenzene	0	0		20			0.00005	**0.06**	0	0	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
trans-1,3-Dichloropropene	0	0		50			0.00011	**0.098**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Constituents Screened Out on Basis of Low # Records																			
Methylethylindene Bicyclooctane	1	1		1	9	9			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Octahydrotrimethylmethylethylphenanthrenol	1	1		1	0.3	0.3			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Titanium	4	4		4	78	180			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Tellurium	0	0		4			5	5	0	0							No	A	Drop - No RSL and less than 10 records sitewide
Ytterium	0	0		4			1	1	0	0							No	A	Drop - No RSL and less than 10 records sitewide
Constituents Screened Out on Basis of Low Frequency of Detection																			
Endrin	1	1		26	0.041	**0.041**	0.00009	**0.009**	4	4	18	n	N	**1.8**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Methoxychlor	1	1		26	0.078	**0.078**	0.00069	**0.022**	4	4	310	n	N	**31**	N	N	No	C	Drop - <5% Detects and All DL < RSL
o-Xylene	1	1		27	0.00041	**0.00041**	0.00006	**0.098**	4	4	3800	n	N	**380**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Silver	1	1		30	0.081	**0.081**	0.004	**1**	3	3	390	n	N	**39**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2-Butanone (MEK)	1	1		33	0.012	**0.012**	0.0018	**0.98**	3	3	28000	n	N	**2800**	N	N	No	C	Drop - <5% Detects and All DL < RSL
4-Methyl-2-pentanone	1	1		33	0.019	**0.019**	0.00026	**0.25**	3	3	5300	n	N	**530**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Carbazole	1	1		42	0.047	**0.047**	0.35	**13**	2	2							No	F	Drop - <5% Detects and No RSL
Vinyl chloride	0	2	2	50			0.00006	**0.098**	0	4	0.06	c	N	**0.06**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1,1,2-Tetrachloroethane	0	0		5			0.0002	**0.088**	0	0	1.9	c	N	**1.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,1-Trichloroethane	0	0		50			0.00016	**0.098**	0	0	8700	n	N	**870**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2,2-Tetrachloroethane	0	0		50			0.00009	**0.098**	0	0	0.56	c	N	**0.56**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2-Trichloroethane	0	0		50			0.00009	**0.098**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethane	0	0		50			0.00005	**0.098**	0	0	3.3	c	N	**3.3**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethene	0	0		50			0.00007	**0.098**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dibromo-3-chloropropane	0	0		3			0.00083	**0.0011**	0	0	0.0054	c	N	**0.0054**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dibromoethane	0	0		3			0.0002	**0.00026**	0	0	0.034	c	N	**0.034**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichlorobenzene	0	0		50			0.00006	**0.42**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloroethane	0	0		50			0.00005	**0.098**	0	0	0.43	c	N	**0.43**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloropropane	0	0		50			0.00006	**0.098**	0	0	0.89	c	N	**0.89**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichlorobenzene	0	0		3			0.00015	**0.00019**	0	0	49	n	N	**4.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,4-Trichlorobenzene	0	0		45			0.00024	**13**	0	0	22	c	N	**22**	N	N	No	B	Drop - No Detects and All DL < RSL
1,3-Dichloropropane	0	0		10			0.00006	**0.098**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < RSL
1,4-Dichlorobenzene	0	0		50			0.00011	**0.42**	0	0	2.4	c	N	**2.4**	N	N	No	C	Drop - No Detects and All DL < RSL
2,2'-Chloroisopropylether	0	0		41			0.35	**13.0**	0	0							No	F	Drop - No Detects and No RSL
2,2'-Oxybis(1-Chloropropane)	0	0		1			0.35	**0.35**	0	0							No	F	Drop - No Detects and No RSL
2,3,4,6-Tetrachlorophenol	0	0		19			5.9	**13**	0	0	1800	n	N	**180**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,5-Trichlorophenol	0	0		42			0.84	**13**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,6-Trichlorophenol	0	0		42			0.35	**13**	0	0	44	c	N	**44**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dichlorophenol	0	0		42			0.35	**13**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dimethylphenol	0	0		42			0.35	**13**	0	0	1200	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloroethyl vinyl ether	0	0		17			0.05	**0.05999**	0	0				**0**			No	F	Drop - No Detects and No RSL
2-Chloronaphthalene	0	0		42			0.35	**13**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorophenol	0	0		42			0.35	**13**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorotoluene	0	0		10			0.00005	**0.098**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Hexanone	0	0		33			0.00083	**0.25**	0	0	210	n	N	**21**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Methylphenol	0	0		42			0.35	**13**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
4,4'-DDD	0	0		26			0.00011	**0.00419**	0	0	2	c	N	**2**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		42			0.35	**13**	0	0							No	F	Drop - No Detects and No RSL
4-Chlorotoluene	0	0		10			0.00009	**0.098**	0	0	5500	n	N	**550**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Chloro-3-methylphenol	0	0		42			0.35	**13**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	0	0		1			0.35	**0.35**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Nitroaniline	0	0		42			0.84	**13**	0	0	24	c	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
Aldrin	0	0		26			0.00016	**0.0022**	0	0	0.029	c	N	**0.029**	N	N	No	C	Drop - No Detects and All DL < RSL
alpha-BHC	0	0		26			0.00011	**0.004**	0	0	0.077	c	N	**0.077**	N	N	No	C	Drop - No Detects and All DL < RSL

Exhibit 2A
Revised COPC Screening - Quad 1
(Originally Table 4.2 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Aroclor-1262	0	0		3			0.00209	**0.013**	0	0	0.22	c	N	**0.22**	N	N	No	C	Drop - No Detects and All DL < RSL
Benzene	0	0		50			0.00015	**0.098**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
beta-BHC	0	0		26			0.00018	**0.0022**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
bis(2-Chloroethoxy) methane	0	0		42			0.35	**13.0**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromobenzene	0	0		10			0.00009	**0.098**	0	0	300	n	N	**30**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromodichloromethane	0	0		50			0.00004	**0.098**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromoform	0	0		50			0.00027	**0.098**	0	0	61	c	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
Butylbenzylphthalate	0	0		42			0.35	**13**	0	0	260	c	N	**260**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbon disulfide	0	0		33			0.00005	**0.25**	0	0	820	n	N	**82**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbon tetrachloride	0	0		50			0.00008	**0.098**	0	0	0.61	c	N	**0.61**	N	N	No	C	Drop - No Detects and All DL < RSL
Chlorobenzene	0	0		50			0.00005	**0.098**	0	0	290	n	N	**29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroethane	0	0		50			0.00032	**0.098**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroform	0	0		50			0.00005	**0.098**	0	0	0.29	c	N	**0.29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloromethane	0	0		50			0.00006	**0.098**	0	0	120	c	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		23			0.01	**0.013**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		27			0.00008	**0.098**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyanide	0	0		1			0.04	**0.04**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyclohexanone	0	0		1			8.3	**8.3**	0	0	310000	n	N	**31000**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromochloromethane	0	0		50			0.00017	**0.098**	0	0	0.68	c	N	**0.68**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromomethane	0	0		10			0.0002	**0.098**	0	0	25	n	N	**2.5**	N	N	No	C	Drop - No Detects and All DL < RSL
Dichlorodifluoromethane	0	0		20			0.00007	**0.06**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Dieldrin	0	0		26			0.00014	**0.00419**	0	0	0.03	c	N	**0.03**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	0	0		42			0.35	**13**	0	0	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Dimethylphthalate	0	0		42			0.35	**13**	0	0							No	F	Drop - No Detects and No RSL
Di-n-octylphthalate	0	0		42			0.35	**13**	0	0							No	F	Drop - No Detects and No RSL
Ethyl benzene	0	0		50			0.00004	**0.098**	0	0	5.4	c	N	**5.4**	N	N	No	C	Drop - No Detects and All DL < RSL
gamma-BHC (Lindane)	0	0		26			0.00046	**0.0022**	0	0	0.52	c	N	**0.52**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor	0	0		26			0.00018	**0.005**	0	0	0.11	c	N	**0.11**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor epoxide	0	0		26			0.00012	**0.003**	0	0	0.053	c	N	**0.053**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorocyclopentadiene	0	0		42			0.35	**13**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachloroethane	0	0		42			0.35	**13**	0	0	35	c	N	**35**	N	N	No	C	Drop - No Detects and All DL < RSL
Isophorone	0	0		42			0.35	**13**	0	0	510	c	N	**510**	N	N	No	C	Drop - No Detects and All DL < RSL
Molybdenum	0	0		4			1	**1**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
N-Nitrosodiphenylamine/Diphenylamine	0	0		42			0.35	**13**	0	0	99	c	N	**99**	N	N	No	C	Drop - No Detects and All DL < RSL
Phenol	0	0		42			0.35	**13**	0	0	18000	n	N	**1800**	N	N	No	C	Drop - No Detects and All DL < RSL
Styrene	0	0		50			0.00008	**0.098**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
Tetrachloroethene	0	0		50			0.00013	**0.098**	0	0	0.55	c	N	**0.55**	N	N	No	C	Drop - No Detects and All DL < RSL
Tin	0	0		4			2.5	**2.5**	0	0	47000	n	N	**4700**	N	N	No	C	Drop - No Detects and All DL < RSL
Toxaphene	0	0		26			0.067	**0.22**	0	0	0.44	c	N	**0.44**	N	N	No	C	Drop - No Detects and All DL < RSL
trans-1,2-Dichloroethene	0	0		27			0.00005	**0.098**	0	0	110	n	N	**11**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichloroethene	0	0		50			0.00014	**0.098**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		27			0.00005	**0.098**	0	0	800	n	N	**80**	N	N	No	C	Drop - No Detects and All DL < RSL
Xylenes (unspecified)	0	0		30			0.01	**0.098**	0	0	630	n	N	**63**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of N-flag (Tentatively Identified Compound)																			
Benzopyrene (not A)	3	3		3	0.2	0.3			67	100							No	D	Drop - TIC
Decahydromethylnaphthalene	1	1		1	30	30			100	100							No	D	Drop - TIC
Diethylmethylbenzamide (unspecified)	1	1		1	0.1	0.1			100	100							No	D	Drop - TIC
Dihydropentamethylindene (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Dihydrotrimethylindene	3	3		3	0.1	3			100	100							No	D	Drop - TIC
Dimethylnaphthalene (unspecified)	1	1		1	0.4	0.4			100	100							No	D	Drop - TIC
Dimethylphenanthrene (unspecified)	1	1		1	0.1	0.1			100	100							No	D	Drop - TIC
Dodecyltetradecahydrophenanthrene	1	1		1	30	30			100	100							No	D	Drop - TIC
Hexadecanoic Acid	7	7		7	0.09	0.6			86	100							No	D	Drop - TIC
Methylbenzanthracene (unspecified)	1	1		1	0.1	0.1			100	100							No	D	Drop - TIC
Methylphenanthrene (unspecified)	1	1		1	0.09	0.09			100	100							No	D	Drop - TIC
Methylpyrene (unspecified)	1	1		1	0.1	0.1			100	100							No	D	Drop - TIC
Octadecanoic Acid	1	1		1	0.8	0.8			100	100							No	D	Drop - TIC

Exhibit 2A
Revised COPC Screening - Quad 1
(Originally Table 4.2 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL (1) (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Octadecenoic Acid (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Octahydrohexamethylindene	3	3		3	30	400.00003			100	100							No	D	Drop - TIC
Pinene (unspecified)	1	1		1	0.3	0.3			100	100							No	D	Drop - TIC
Tetramethylbutylphenol (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Tetramethylphenanthrene (unspecified)	4	4		4	0.1	0.3			50	100							No	D	Drop - TIC
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	24	24		30	84	11000	50	210	70	80							No	E	Drop - Essential Nutrient
Magnesium	22	22		30	51.6	3900	20	170	57	73							No	E	Drop - Essential Nutrient
Potassium	21	21		30	25	400	21	200	60	70							No	E	Drop - Essential Nutrient
Sodium	28	28		30	11.8	1100	19	21	77	93							No	E	Drop - Essential Nutrient
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
1,2,4-Trimethylbenzene	1	1		20	0.12999	**0.12999**	0.00009	**0.06**	5	5	62	n	N	**6.2**	N	N	No	G	Drop - Max Detect and DL < RSL
1,3,5-Trimethylbenzene	1	1		20	0.34	**0.34**	0.00004	**0.06**	5	5	780	n	N	**78**	N	N	No	G	Drop - Max Detect and DL < RSL
1-Methyl Naphthalene	1	1		20	0.1	**0.1**	0.32	**0.68**	5	5	22	c	N	**22**	N	N	No	G	Drop - Max Detect and DL < RSL
2-Methylnaphthalene	11	11		68	0.002	**0.2**	0.32	**13**	16	16	310	n	N	**31**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDE	4	4		26	0.0046	**0.086**	0.00064	**0.005**	15	15	1.4	c	N	**1.4**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDT	7	7		26	0.0033	**0.11**	0.0013	**0.007**	23	27	1.7	c	N	**1.7**	N	N	No	G	Drop - Max Detect and DL < RSL
Acenaphthene	7	7		68	0.00017	**0.61**	0.00023	**13**	10	10	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Acetone	3	3		33	0.014	**0.1**	0.01	**0.98**	9	9	61000	n	N	**6100**	N	N	No	G	Drop - Max Detect and DL < RSL
Aluminum	30	30		30	1950	**7400**			80	100	77000	n	N	**7700**	N	N	No	G	Drop - Max Detect and DL < RSL
Anthracene	13	13		68	0.0013	**2.4**	0.32	**13**	19	19	17000	n	N	**1700**	N	N	No	G	Drop - Max Detect and DL < RSL
Antimony	6	6		34	0.017	**0.13199**	0.04	**3**	15	18	31	n	N	**3.1**	N	N	No	G	Drop - Max Detect and DL < RSL
Barium	31	31		50	1.69	**41**	53.1	**62.5**	48	62	15000	n	N	**1500**	N	N	No	G	Drop - Max Detect and DL < RSL
Benzo(k)fluoranthene	7	7		27	0.001	**0.65**	0.00015	**0.68**	26	26	1.5	c	N	**1.5**	N	N	No	G	Drop - Max Detect and DL < RSL
Beryllium	3	3		30	0.025	**0.05499**	0.17	**1**	10	10	160	n	N	**16**	N	N	No	G	Drop - Max Detect and DL < RSL
Bromomethane	4	4		50	0.07	**0.13**	0.00045	**0.098**	8	8	7.3	n	N	**0.73**	N	N	No	G	Drop - Max Detect and DL < RSL
Cadmium	3	3		30	0.017	**0.054**	0.11	**0.5**	10	10	70	n	N	**7**	N	N	No	G	Drop - Max Detect and DL < RSL
Chrysene	18	18		68	0.0031	**0.89**	0.00025	**13**	25	26	15	c	N	**15**	N	N	No	G	Drop - Max Detect and DL < RSL
Cobalt	5	5		30	0.09799	**1.2**	0.42	**2**	17	17	23	n	N	**2.3**	N	N	No	G	Drop - Max Detect and DL < RSL
Copper	18	18		34	0.36	**43**	0.64	**6**	50	53	3100	n	N	**310**	N	N	No	G	Drop - Max Detect and DL < RSL
Dichloromethane (Methylene chloride)	9	9		50	0.00048	**0.018**	0.00016	**0.098**	10	18	11	c	N	**11**	N	N	No	G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	2	2		42	0.027	**0.4**	0.35	**13**	5	5	6100	n	N	**610**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluoranthene	17	17		68	0.0015	**3.1**	0.32	**13**	24	25	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluorene	6	6		68	0.00018	**0.0056**	0.0005	**13**	9	9	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
Isopropylbenzene	1	1		20	0.05999	**0.06**	0.00003	**0.06**	5	5	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < RSL
m&p-Xylene	2	2		20	0.00038	**0.00097**	0.00011	**0.06**	10	10	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Manganese	30	30		30	3.51	**140**			93	100	1800	n	N	**180**	N	N	No	G	Drop - Max Detect and DL < RSL
Methyl mercury	9	9		9	0.00007	**0.00149**			100	100	7.8	n	N	**0.78**	N	N	No	G	Drop - Max Detect and DL < RSL
Nickel	10	10		34	0.73	**5.44**	2	**20**	26	29	1500	n	N	**150**	N	N	No	G	Drop - Max Detect and DL < RSL
Pyrene	23	23		68	0.0063	**2.4**	0.32	**13**	28	34	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < RSL
Selenium	2	2		30	1.5	**1.7**	0.4	**4**	7	7	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Toluene	25	25		50	0.00016	**0.07**	0.01	**0.098**	34	50	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < RSL
Strontium	4	4		4	3.6	**24**			100	100	47000	n	N	**4700**	N	N	No	G,A	Drop - Max Detect and DL < RSL
Zinc	15	15		34	3	**87**	0.85	**40**	44	44	23000	n	N	**2300**	N	N	No	G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs.
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.

Highlighted Cells Key:
- Frequency Detection < 5%
- Constituent without RSL - Surrogate Chemical Identified
- Change to RSL between April 2009 and November 2010

COPC screening code (from HHBRA):
- A Low record count <10 site wide
- B DLs above adjusted residential RSL
- C Less than 5% detection frequency including DLs above adjusted RSL
- D Parameter with N flag
- E Essential nutrient
- F Less than 5% detection frequency and no RSL
- G Max detect and max DL below adjusted residential RSL
- T Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
- Y Retain as COPC

Exhibit 2B
Screening Refinements for "B" Flagged Parameters - Quad 1

Parameter	CRQL Medium[1] (mg/kg)	Residential RSL [2] (mg/kg)	# DL above CRQL	% DL above CRQL [3]	# DL above RSL	% DL above RSL [4]	# Level 4 data records	# Level 4 data DL below RSL [5]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
1,2,3-Trichloropropane	0.25	0.005	0	0	7	70	10	3			Drop - <10% DL > CRQL
2-Nitroaniline	10	61	1	2	0	0					Drop - <10% DL > CRQL
2,4-Dinitrophenol	10	12	19	45	17	40	42	25			Drop - >10 Level IV DLs < RSL
2,4-Dinitrotoluene	5	1.6	19	45	19	45	42	23			Drop - >10 Level IV DLs < RSL
2,6-Dinitrotoluene	5	6.1	19	45	17	40	42	25			Drop - >10 Level IV DLs < RSL
3,3'-Dichlorobenzidine	5	1.1	19	45	19	45	42	23			Drop - >10 Level IV DLs < RSL
4-Chloroaniline	5	2.4	19	45	19	45	42	23			Drop - >10 Level IV DLs < RSL
4,6-Dinitro-2-methylphenol	10	0.49	19	45	42	100	42	0	0	0	Retain as Qualatative COPC
Aroclor-1016	0.033	0.39	48	80	24	40	36	36			Drop - >10 Level IV DLs < RSL
Aroclor-1221	0.033	0.14	48	80	24	40	36	36			Drop - >10 Level IV DLs < RSL
Aroclor-1232	0.033	0.14	48	80	24	40	36	36			Drop - >10 Level IV DLs < RSL
Aroclor-1242	0.033	0.22	48	80	24	40	36	36			Drop - >10 Level IV DLs < RSL
Aroclor-1248	0.033	0.22	48	80	24	40	36	36			Drop - >10 Level IV DLs < RSL
Aroclor-1254	0.033	0.22	45	75	24	40	36	36			Drop - >10 Level IV DLs < RSL
bis(2-Chloroethyl) ether	5	0.21	19	45	42	100	42	0	0	0	Retain as Qualatative COPC
Dibenzofuran	5	7.8	19	49	13	28.6	49	36			Drop - >10 Level IV DLs < RSL
Hexachlorobenzene	5	0.3	19	45	42	100	42	0	0	0	Retain as Qualatative COPC
Hexachlorobutadiene	5	6.2	19	42	17	37.8	45.0	28.0			Drop - >10 Level IV DLs < RSL
Naphthalene	5	3.6	19	28	19	27.9	49.0	30.0			Drop - >10 Level IV DLs < RSL
Nitrobenzene	5	4.8	19	45	19	45.2	42.0	23.0			Drop - >10 Level IV DLs < RSL
N-Nitroso-di-n-propylamine	5	0.069	19	45	42	100	42	0	0	0	Retain as Qualatative COPC
Pentachlorophenol	10	0.89	19	45	25	59.5	42.0	17.0			Drop - >10 Level IV DLs < RSL
Pyridine	NV	7.8	--	--	1	100	1	0	0	0	Retain as Qualatative COPC
Thallium	2.5	0.51	5	17	27	90	30	3			Drop - not used at site

Notes:

(1) Values are the current EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQL).

(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.1.

(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQLs.

(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSLs.

(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL.

Exhibit 3A
Revised COPC Screening - Quad 2
(Originally Table 4.3 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
Arsenic	3	20	17	20	0.23	**3.3**	1.1	2	15	100	0.39	c	Y	**0.39**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1221	1	16	15	60	0.27	**0.27**	0.0017	2.67	2	27	0.14	c	Y	**0.14**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1254	19	33	14	60	0.013	**11**	0.0017	2.67	27	55	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1260	2	16	14	60	1.2	**1.4**	0.0017	2.67	3	27	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1268	30	41	11	44	0.014	**19**	0.038	2.67	64	93	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	8	35	27	35	0.0058	**0.86**	0.33	0.41	23	100	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	8	35	27	35	0.0069	**0.96**	0.33	0.41	23	100	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	3	17	14	17	0.012	**0.37**	0.33	0.4	18	100	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b/k)fluoranthene	6	18	12	18	0.055	**0.72**	0.38	0.41	33	100	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Carbazole	1	1		19	0.046	**0.046**	0.37	0.41	5	5							**YES**	Y	**Retain as COPC** - >5% Detect and no RSL
Chromium	20	20	0	20	1.3	**12.7**	0.12	0.23	90	100	0.29	c	Y	**0.29**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	6	35	29	35	0.0017	**0.26**	0.33	0.41	17	100	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Indeno(1,2,3-cd)pyrene	7	35	28	35	0.0072	**0.54**	0.33	0.41	20	100	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Iron	20	20	0	20	217	**14400**	1.2	2.3	90	100	55000	n	N	**5500**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Mercury	27	38	11	46	0.105	**17.5**	0.12	0.67	59	83	5.6	n	Y	**0.56**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Exhibit 3B)																			
Thallium	3	21	18	20	0.01499	**0.5**	1.6	**1.8**	15	105	5.1	n	N	**0.51**	N	Y	No	B, T	Drop - <10% DL > CRQL
4,6-Dinitro-2-methylphenol	0	19	19	19			0.89	**1**	0	100	4.9	n	N	**0.49**	N	Y	No	B	Drop - <10% DL > CRQL
bis(2-Chloroethyl) ether	0	19	19	19			0.37	**0.41**	0	100	0.21	c	N	**0.21**	N	Y	No	B	Drop - <10% DL > CRQL
Hexachlorobenzene	0	19	19	19			0.37	**0.41**	0	100	0.3	c	N	**0.3**	N	Y	No	B	Drop - <10% DL > CRQL
N-Nitroso-di-n-propylamine	0	19	19	19			0.37	**0.41**	0	100	0.069	c	N	**0.069**	N	Y	No	B	Drop - <10% DL > CRQL
Aroclor-1232	0	15	15	60			0.0017	**2.67**	0	25	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1242	0	14	14	60			0.0017	**2.67**	0	23	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1248	0	14	14	60			0.0017	**2.67**	0	23	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1016	0	13	13	60			0.0017	**2.67**	0	22	3.9	n	N	**0.39**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Toxaphene	0	2	2	21			0.19	**14**	0	10	0.44	c	N	**0.44**	N	Y	No	B	Drop - <10% DL > CRQL
Vinyl chloride	0	2	2	34			0.00006	**0.07**	0	6	0.06	c	N	**0.06**	N	Y	No	B	Drop - <10% DL > CRQL
Aldrin	0	1	1	21			0.00016	**0.037**	0	5	0.029	c	N	**0.029**	N	Y	No	B	Drop - <10% DL > CRQL
Dieldrin	0	1	1	21			0.0037	**0.12**	0	5	0.03	c	N	**0.03**	N	Y	No	B	Drop - <5% DL > RSL
2,4-Dinitrotoluene	0	0	0	19			0.37	**0.41**	0	0	1.6	c	N	**1.6**	N	N	No	B	Drop - <10% DL > CRQL
Pentachlorophenol	0	18	18	19			0.89	**1**	0	95	0.89	c	N	**0.89**	N	Y	No	B	Drop - <10% DL > CRQL
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
Phenanthrene	9	9		35	0.0092	**0.46**	0.33	**0.41**	26	26	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	8	8		35	0.0069	**1.6**	0.33	**0.41**	23	23	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Dibenzofuran	4	4		22	0.00053	**0.052**	0.37	**0.41**	18	18	78	n	N	**7.8**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	3	3		35	0.00012	**0.011**	0.33	**0.41**	9	9	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Propylbenzene	1	1		15	0.0043	**0.0043**	0.00006	**0.07**	7	7	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	1	1		15	0.0012	**0.0012**	0.00008	**0.07**	7	7	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
sec-Butylbenzene	1	1		15	0.00026	**0.00026**	0.00007	**0.07**	7	7	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	1	1		21	0.029	**0.029**	0.0019	**0.14**	5	5	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
1,1-Dichloropropene	0	0		2			0.00017	**0.00018**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
1,3-Dichlorobenzene	0	0		34			0.00007	**0.41**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2,2-Dichloropropane	0	0		2			0.00011	**0.00012**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2-Nitrophenol	0	0		19			0.37	**0.41**	0	0	120	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
3-Nitroaniline	0	0		19			0.89	**1**	0	0	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
3/4-Methylphenol	0	0		18			0.37	**0.41**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Chlorophenyl-phenylether	0	0		19			0.37	**0.41**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Nitrophenol	0	0		19			0.89	**1**	0	0	120	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
alpha-Chlordane	0	0		21			0.0019	**0.037**	0	0	1.6	c	N	**1.6**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Bromochloromethane	0	0		2			0.00027	**0.0003**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
cis-1,3-Dichloropropene	0	0		34			0.00003	**0.07**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
delta-BHC	0	0		21			0.00059	**0.0037**	0	0	0.077	c	N	**0.077**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan I	0	0		21			0.0019	**0.037**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan II	0	0		21			0.0037	**0.039**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan sulfate	0	0		21			0.00059	**0.03**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL

Exhibit 3A
Revised COPC Screening - Quad 2
(Originally Table 4.3 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Endrin aldehyde	0	0		21			0.0037	**0.056**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endrin ketone	0	0		21			0.0037	**0.32**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
n-Butylbenzene	0	0		15			0.00009	**0.07**	0	0	5.4	c	N	**5.4**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
tert-Butylbenzene	0	0		15			0.00005	**0.07**	0	0	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
trans-1,3-Dichloropropene	0	0		34			0.00011	**0.07**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Constituents Screened Out on Basis of Low # Records																			
Hexadecenoic Acid	3	3		3	0.3	2			100	100								A	Drop - No RSL and less than 10 records sitewide
Constituents Screened Out on Basis of Low Frequency of Detection																			
2-Hexanone	1	1		21	0.15	**0.15**	0.00083	**0.012**	4.8	4.8	210	n	N	**21**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Benzene	1	1		34	0.012	**0.012**	0.00016	**0.07**	3	3	1.1	c	N	**1.1**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Dichloromethane (Methylene chloride)	1	1		34	0.006	**0.006**	0.00016	**0.07**	3	3	11	c	N	**11**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Ethyl benzene	1	1		34	0.0078	**0.0078**	0.00004	**0.07**	3	3	5.4	c	N	**5.4**	N	N	No	C	Drop - <5% Detects and All DL < RSL
1,1,1,2-Tetrachloroethane	0	0		2			0.0002	**0.00022**	0	0	1.9	c	N	**1.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,1-Trichloroethane	0	0		34			0.00017	**0.07**	0	0	8700	n	N	**870**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2,2-Tetrachloroethane	0	0		34			0.00009	**0.07**	0	0	0.56	c	N	**0.56**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2-Trichloroethane	0	0		34			0.00009	**0.07**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethane	0	0		34			0.00005	**0.07**	0	0	3.3	c	N	**3.3**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethene	0	0		34			0.00007	**0.07**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichlorobenzene	0	0		2			0.00016	**0.00017**	0	0	49	n	N	**4.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichloropropane	0	0		2			0.00028	**0.00033**	0	0	0.005	c	N	**0.005**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,4-Trichlorobenzene	0	0		21			0.00024	**0.41**	0	0	22	c	N	**22**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dibromo-3-chloropropane	0	0		2			0.00083	**0.00093**	0	0	0.0054	c	N	**0.0054**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dibromoethane	0	0		2			0.0002	**0.00023**	0	0	0.034	c	N	**0.034**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichlorobenzene	0	0		34			0.00006	**0.41**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloroethane	0	0		34			0.00005	**0.07**	0	0	0.43	c	N	**0.43**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloropropane	0	0		34			0.00007	**0.07**	0	0	0.89	c	N	**0.89**	N	N	No	C	Drop - No Detects and All DL < RSL
1,3-Dichloropropane	0	0		2			0.00006	**0.00007**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < RSL
1,4-Dichlorobenzene	0	0		34			0.00011	**0.41**	0	0	2.4	c	N	**2.4**	N	N	No	C	Drop - No Detects and All DL < RSL
1-Methyl Naphthalene	0	0		13			0.33	**0.4**	0	0	22	c	N	**22**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2,2'-Chloroisopropylether	0	0		18			0.37	**0.41**	0	0							No	F	Drop - No Detects and No RSL
2,2'-Oxybis(1-Chloropropane)	0	0		1			0.39	**0.39**	0	0							No	F	Drop - No Detects and No RSL
2,4,5-Trichlorophenol	0	0		19			0.89	**1**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,6-Trichlorophenol	0	0		19			0.37	**0.41**	0	0	44	c	N	**44**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dichlorophenol	0	0		19			0.37	**0.41**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dimethylphenol	0	0		19			0.37	**0.41**	0	0	1200	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dinitrophenol	0	0		19			0.89	**1**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < RSL
2,6-Dinitrotoluene	0	0		19			0.37	**0.41**	0	0	61	n	N	**6.1**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloroethyl vinyl ether	0	0		13			0.05999	**0.07**	0	0							No	F	Drop - No Detects and No RSL
2-Chloronaphthalene	0	0		19			0.37	**0.41**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorophenol	0	0		19			0.37	**0.41**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorotoluene	0	0		2			0.00005	**0.00006**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Methylphenol	0	0		19			0.37	**0.41**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Nitroaniline	0	0		19			0.89	**1**	0	0	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
3,3'-Dichlorobenzidine	0	0		19			0.37	**0.41**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
4,4'-DDD	0	0		21			0.00059	**0.07**	0	0	2	c	N	**2**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		19			0.37	**0.41**	0	0							No	F	Drop - No Detects and No RSL
4-Chlorotoluene	0	0		2			0.00009	**0.00011**	0	0	5500	n	N	**550**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Chloro-3-methylphenol	0	0		19			0.37	**0.41**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	0	0		1			0.39	**0.39**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Nitroaniline	0	0		19			0.89	**1**	0	0	24	c	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
Aroclor-1262	0	0		2			0.021	**0.21**	0	0	0.22	c	N	**0.22**	N	N	No	C	Drop - No Detects and All DL < RSL
beta-BHC	0	0		21			0.00018	**0.009**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
bis(2-Chloroethoxy) methane	0	0		19			0.37	**0.41**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromobenzene	0	0		2			0.00009	**0.00011**	0	0	300	n	N	**30**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromodichloromethane	0	0		34			0.00004	**0.07**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromoform	0	0		34			0.00027	**0.07**	0	0	61	c	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL

Exhibit 3A
Revised COPC Screening - Quad 2
(Originally Table 4.3 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Bromomethane	0	0		34			0.00046	**0.07**	0	0	7.3	n	N	**0.73**	N	N	No	C	Drop - No Detects and All DL < RSL
Butylbenzylphthalate	0	0		19			0.37	**0.41**	0	0	260	c	N	**260**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbon tetrachloride	0	0		34			0.00008	**0.07**	0	0	0.61	c	N	**0.61**	N	N	No	C	Drop - No Detects and All DL < RSL
Chlorobenzene	0	0		34			0.00005	**0.07**	0	0	290	n	N	**29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroethane	0	0		34			0.00033	**0.07**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroform	0	0		34			0.00005	**0.07**	0	0	0.29	c	N	**0.29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloromethane	0	0		34			0.00006	**0.07**	0	0	120	c	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		19			0.011	**0.012**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		15			0.00008	**0.07**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyanide	0	0		1			0.03999	**0.03999**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromochloromethane	0	0		34			0.00018	**0.07**	0	0	0.68	c	N	**0.68**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromomethane	0	0		2			0.0002	**0.00022**	0	0	25	n	N	**2.5**	N	N	No	C	Drop - No Detects and All DL < RSL
Dichlorodifluoromethane	0	0		15			0.00007	**0.07**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	0	0		19			0.37	**0.41**	0	0	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Dimethylphthalate	0	0		19			0.37	**0.41**	0	0							No	F	Drop - No Detects and No RSL
Di-n-octylphthalate	0	0		19			0.37	**0.41**	0	0							No	F	Drop - No Detects and No RSL
Endrin	0	0		21			0.00209	**0.04**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor	0	0		21			0.00012	**0.006**	0	0	0.11	c	N	**0.11**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor epoxide	0	0		21			0.0019	**0.037**	0	0	0.053	c	N	**0.053**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorobutadiene	0	0		21			0.00019	**0.41**	0	0	6.2	c	N	**6.2**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorocyclopentadiene	0	0		19			0.37	**0.41**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachloroethane	0	0		19			0.37	**0.41**	0	0	35	c	N	**35**	N	N	No	C	Drop - No Detects and All DL < RSL
Isophorone	0	0		19			0.37	**0.41**	0	0	510	c	N	**510**	N	N	No	C	Drop - No Detects and All DL < RSL
Nitrobenzene	0	0		19			0.37	**0.41**	0	0	4.8	c	N	**4.8**	N	N	No	C	Drop - No Detects and All DL < RSL
N-Nitrosodiphenylamine/Diphenylamine	0	0		19			0.37	**0.41**	0	0	99	c	N	**99**	N	N	No	C	Drop - No Detects and All DL < RSL
Phenol	0	0		19			0.37	**0.41**	0	0	18000	n	N	**1800**	N	N	No	C	Drop - No Detects and All DL < RSL
Styrene	0	0		34			0.00008	**0.07**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
Tetrachloroethene	0	0		34			0.00013	**0.07**	0	0	0.55	c	N	**0.55**	N	N	No	C	Drop - No Detects and All DL < RSL
trans-1,2-Dichloroethene	0	0		15			0.00005	**0.07**	0	0	110	n	N	**11**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichloroethene	0	0		34			0.00014	**0.07**	0	0	2.8	c	N	**2.8**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		15			0.00005	**0.07**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Xylenes (unspecified)	0	0		19			0.011	**0.012**	0	0	630	n	N	**63**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of N-flag (Tentatively Identified Compound)																			
Aroclor-unspecified-10	1	1		1	0.3	0.3			100	100							No	D	Drop - TIC
Aroclor-unspecified-5	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Aroclor-unspecified-8	4	4		4	0.6	1			75	100							No	D	Drop - TIC
Aroclor-unspecified-9	7	7		7	0.2	2			57	100							No	D	Drop - TIC
Benzofluoranthene (unspecified)	1	1		1	0.5	0.5			100	100							No	D	Drop - TIC
Benzonaphthothiophene (unspecified)	2	2		2	0.2	0.3			100	100							No	D	Drop - TIC
Diethylmethylbenzamide (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Dimethylbenzonaphthothiophene (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Dimethyldibenzothiophene (unspecified)	1	1		1	0.5	0.5			100	100							No	D	Drop - TIC
Dimethylphenanthrene (unspecified)	1	1		1	0.5	0.5			100	100							No	D	Drop - TIC
Dimethylpyrene (unspecified)	1	1		1	0.4	0.4			100	100							No	D	Drop - TIC
Hexadecanoic Acid	8	8		8	0.2	0.7			75	100							No	D	Drop - TIC
Methylbenzanthracene (unspecified)	1	1		1	0.6	0.6			100	100							No	D	Drop - TIC
Methylbenzonaphthothiophene	1	1		1	0.7	0.7			100	100							No	D	Drop - TIC
Methylpyrene (unspecified)	2	2		2	0.3	0.3			50	100							No	D	Drop - TIC
Octadecanoic Acid	1	1		1	1	1			100	100							No	D	Drop - TIC
Pentadeconic Acid	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Tetramethylphenanthrene (unspecified)	1	1		1	0.4	0.4			100	100							No	D	Drop - TIC
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	18	18		20	36.3	3850	70	100	80	90							No	E	Drop - Essential Nutrient
Magnesium	7	7		20	20.1	3050	80	210	35	35							No	E	Drop - Essential Nutrient
Potassium	17	17		20	30	281	50	50	80	85							No	E	Drop - Essential Nutrient
Sodium	19	19		20	8.5	656	23	23	75	95							No	E	Drop - Essential Nutrient

Exhibit 3A
Revised COPC Screening - Quad 2
(Originally Table 4.3 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
1,2,4-Trimethylbenzene	1	1		15	0.052	**0.052**	0.0001	**0.07**	7	7	62	n	N	**6.2**	N	N	No	G	Drop - Max Detect and DL < RSL
1,3,5-Trimethylbenzene	1	1		15	0.014	**0.014**	0.00004	**0.07**	7	7	780	n	N	**78**	N	N	No	G	Drop - Max Detect and DL < RSL
2-Butanone (MEK)	1	1		21	1.1	**1.1**	0.0018	**0.02**	5	5	28000	n	N	**2800**	N	N	No	G	Drop - Max Detect and DL < RSL
2-Methylnaphthalene	6	6		35	0.0016	**0.4**	0.33	**0.41**	17	17	310	n	N	**31**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDE	1	1		21	0.046	**0.046**	0.0037	**0.05**	5	5	1.4	c	N	**1.4**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDT	5	5		21	0.00989	**0.57**	0.0037	**0.8**	24	24	1.7	c	N	**1.7**	N	N	No	G	Drop - Max Detect and DL < RSL
4-Methyl-2-pentanone	1	1		21	0.0036	**0.0036**	0.00026	**0.012**	5	5	5300	n	N	**530**	N	N	No	G	Drop - Max Detect and DL < RSL
Acenaphthene	3	3		35	0.0005	**0.0069**	0.33	**0.41**	9	9	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Acetone	4	4		21	0.016	**1.6**	0.012	**0.13**	19	19	61000	n	N	**6100**	N	N	No	G	Drop - Max Detect and DL < RSL
alpha-BHC	1	1		21	0.00018	**0.00018**	0.0019	**0.0055**	5	5	0.077	c	N	**0.077**	N	N	No	G	Drop - Max Detect and DL < RSL
Aluminum	20	20		20	1300	**4740**			75	100	77000	n	N	**7700**	N	N	No	G	Drop - Max Detect and DL < RSL
Anthracene	5	5		35	0.00086	**0.099**	0.33	**0.41**	14	14	17000	n	N	**1700**	N	N	No	G	Drop - Max Detect and DL < RSL
Antimony	3	3		21	0.03999	**0.58999**	1.1	**2**	14	14	31	n	N	**3.1**	N	N	No	G	Drop - Max Detect and DL < RSL
Barium	22	22		33	2	**174**	55.5	**66.7**	58	67	15000	n	N	**1500**	N	N	No	G	Drop - Max Detect and DL < RSL
Benzo(k)fluoranthene	3	3		17	0.0039	**0.15**	0.33	**0.4**	18	18	1.5	c	N	**1.5**	N	N	No	G	Drop - Max Detect and DL < RSL
Beryllium	2	2		20	0.003	**0.337**	0.19	**1**	10	10	160	n	N	**16**	N	N	No	G	Drop - Max Detect and DL < RSL
bis(2-Ethylhexyl) phthalate	1	1		19	0.52	**0.52**	0.37	**0.81**	5	5	35	c	N	**35**	N	N	No	G	Drop - Max Detect and DL < RSL
Cadmium	2	2		20	0.034	**0.409**	0.12	**0.5**	10	10	70	n	N	**7**	N	N	No	G	Drop - Max Detect and DL < RSL
Carbon disulfide	1	1		21	0.00031	**0.00031**	0.00005	**0.012**	5	5	820	n	N	**82**	N	N	No	G	Drop - Max Detect and DL < RSL
Chrysene	10	10		35	0.0079	**1.2**	0.33	**0.41**	29	29	15	c	N	**15**	N	N	No	G	Drop - Max Detect and DL < RSL
Cobalt	2	2		20	0.12399	**1.46**	0.12	**2**	10	10	23	n	N	**2.3**	N	N	No	G	Drop - Max Detect and DL < RSL
Copper	12	12		21	0.47999	**28**	4	**7**	57	57	3100	n	N	**310**	N	N	No	G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	2	2		19	0.037	**0.42**	0.37	**0.41**	11	11	6100	n	N	**610**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluoranthene	9	9		35	0.018	**0.43**	0.33	**0.41**	26	26	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluorene	3	3		35	0.0006	**0.0055**	0.33	**0.41**	9	9	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
gamma-BHC (Lindane)	1	1		21	0.00074	**0.00074**	0.0019	**0.004**	5	5	0.52	c	N	**0.52**	N	N	No	G	Drop - Max Detect and DL < RSL
Isopropylbenzene	1	1		15	0.00053	**0.00053**	0.00003	**0.07**	7	7	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < RSL
Lead	22	23	1	35	1.7	**140**	3	50	63	66	400	n	N	**400**	N	N	No	Y	Drop - Max Detect and DL < RSL
m&p-Xylene	1	1		15	0.072	**0.072**	0.0001	**0.07**	7	7	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Manganese	18	18		20	0.6	**132**	4	**4**	90	90	1800	n	N	**180**	N	N	No	G	Drop - Max Detect and DL < RSL
Methoxychlor	3	3		21	0.0046	**0.35**	0.019	**0.021**	14	14	310	n	N	**31**	N	N	No	G	Drop - Max Detect and DL < RSL
Methyl mercury	2	2		2	0.00028	**0.0014**			100	100	7.8	n	N	**0.78**	N	N	No	G	Drop - Max Detect and DL < RSL
Naphthalene	6	6		35	0.0013	**0.16**	0.33	**0.41**	17	17	3.6	c	N	**3.6**	N	N	No	G	Drop - Max Detect and DL < RSL
Nickel	3	3		21	0.52999	**6.52**	0.24	**8**	14	14	1500	n	N	**150**	N	N	No	G	Drop - Max Detect and DL < RSL
o-Xylene	1	1		15	0.00889	**0.00889**	0.00006	**0.07**	7	7	3800	n	N	**380**	N	N	No	G	Drop - Max Detect and DL < RSL
Pyrene	11	11		35	0.014	**1**	0.33	**0.41**	31	31	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < RSL
Selenium	1	1		20	1.4	**1.4**	0.4	**1.3**	5	5	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Silver	1	1		20	0.289	**0.289**	0.00499	**0.75**	5	5	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Toluene	11	11		34	0.002	**0.036**	0.00004	**0.07**	21	32	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < RSL
Vanadium	7	7		21	1.1	**19**	2	**20**	33	33	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Zinc	10	10		21	1.5	**230**	5	**30**	48	48	23000	n	N	**2300**	N	N	No	G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs.
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.

Highlighted Cells Key:
- Frequency Detection < 5%
- Constituent without RSL - Surrogate Chemical Identified
- Change to RSL between April 2009 and November 2010

COPC screening code (from HHBRA):
- A Low record count <10 site wide
- B DLs above adjusted residential RSL
- C Less than 5% detection frequency including DLs above adjusted RSL
- D Parameter with N flag
- E Essential nutrient
- F Less than 5% detection frequency and no RSL
- G Max detect and max DL below adjusted residential RSL
- T Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
- Y Retain as COPC

Exhibit 3B
Screening Refinements for "B" Flagged Parameters - Quad 2

Parameter	CRQL Medium[1] (mg/kg)	Residential RSL [2] (mg/kg)	# of records	# DL above CRQL	% DL above CRQL [3]	# DL above RSL	% DL above RSL [4]	# Level 4 data records	# Level 4 data DL below RSL [5]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
2,4-Dinitrotoluene	5	1.6	19	0	0	0	0					Drop - <10% DL > CRQL
4,6-Dinitro-2-methylphenol	10	0.49	19	0	0	19	100					Drop - <10% DL > CRQL
Aldrin	0.0017	0.029	21	20	95	1	4.8					Drop - <5% DL > RSL
Aroclor-1016	0.033	0.39	60	50	83	13	22	47	46			Drop - >10 Level IV DLs < RSL
Aroclor-1232	0.033	0.14	60	35	58	15	25	47	45			Drop - >10 Level IV DLs < RSL
Aroclor-1242	0.033	0.22	60	35	58	14	23	47	46			Drop - >10 Level IV DLs < RSL
Aroclor-1248	0.033	0.22	60	35	58	14	23	47	46			Drop - >10 Level IV DLs < RSL
bis(2-Chloroethyl) ether	5	0.21	19	0	0	19	100					Drop - <10% DL > CRQL
Dieldrin	0.0033	0.03	21	21	100	1	4.8					Drop - <5% DL > RSL
Hexachlorobenzene	5	0.21	19	0	0	19	100					Drop - <10% DL > CRQL
N-Nitroso-di-n-propylamine	5	0.3	19	0	0	19	100					Drop - <10% DL > CRQL
Pentachlorophenol	10	0.89	19	0	0	18	95					Drop - <10% DL > CRQL
Thallium	2.5	0.51	20	0	0	18	90					Drop - <10% DL > CRQL
Toxaphene	0.17	0.44	21	21	100	2	10	21	19			Drop - >10 Level IV DLs < RSL
Vinyl chloride	0.25	0.06	34	0	0	2	5.9					Drop - <10% DL > CRQL

Notes:

(1) Values are the current EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQL).

(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.1.

(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQLs.

(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSLs.

(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL.

Exhibit 4A
Revised COPC Screening - Quad 3
(Originally Table 4.4 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
1,1,2,2-Tetrachloroethane	7	47	40	287	0.07	**0.92**	0.00009	12	2	16	0.56	c	Y	**0.56**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
1,2,4-Trimethylbenzene	84	85	1	223	0.00026	**120**	0.00009	0.66	30	38	62	n	Y	**6.2**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
1,4-Dichlorobenzene	2	13	11	285	0.92	**18.2**	0.00011	12	1	5	2.6	c	Y	**2.6**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
1-Methyl Naphthalene	72	72	0	235	0.39	**64.4**	0.3	3.26	30	31	22	c	Y	**22**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
2-Methylnaphthalene	91	91	0	310	0.0013	**92.6**	0.00039	11.4	27	29	310	n	N	**31**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
4,6-Dinitro-2-methylphenol	2	59	57	59	0.37	**32**	0.87	110	3	100	4.9	n	Y	**0.49**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aluminum	34	34	0	34	171	**21900**	0.8	56	94	100	77000	n	N	**7700**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Antimony	10	33	23	37	0.00899	**9.86**	0.03	66	27	89	31	n	N	**3.1**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1016	2	325	323	399	0.028	**0.42**	0.0017	418	1	81	3.9	n	N	**0.39**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1254	59	376	317	399	0.0028	**28**	0.00209	418	12	94	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1260	22	352	330	399	0.031	**7.3**	0.0017	418	6	88	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1268	71	378	307	397	0.0037	**21**	0.00209	418	17	95	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Arsenic	19	36	17	39	0.23	**12.9**	0.2	66	46	92	0.39	c	Y	**0.39**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzene	15	38	23	287	0.00055	**20.2**	0.00015	12	5	13	1.1	c	Y	**1.1**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	51	310	259	312	0.00068	**6.4**	0.00048	54	15	99	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	42	310	268	312	0.00032	**3.86**	0.00014	54	13	99	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	43	307	264	309	0.00079	**3.6**	0.00025	11.4	12	99	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(k)fluoranthene	36	58	22	309	0.00028	**1.82**	0.00015	11.4	10	19	1.5	c	Y	**1.5**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
bis(2-Chloroethyl) ether	1	64	63	64	0.38	**0.38**	0.36	54	2	100	0.21	c	Y	**0.21**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Carbazole	6	6		54	0.005	**0.076**	0.36	54	11	11							**YES**	Y	**Retain as COPC** - >5% Detect and no RSL
Chromium	34	59	25	39	1.26	**12.6**	0.75	22	85	151	0.29	c	Y	**0.29**	**Y**	Y	**YES**	G	**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	14	309	295	312	0.00059	**2.7**	0.00028	54	4	99	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Dibromochloromethane	7	31	24	287	0.07	**4.8**	0.00017	12	2	11	0.68	c	Y	**0.68**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Dichloromethane (Methylene chloride)	44	45	1	287	0.00033	**16**	0.00015	12	10	16	11	c	Y	**11**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Ethyl benzene	51	51	2	287	0.0007	**18**	0.00004	11	16	18	5.4	c	Y	**5.4**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Indeno(1,2,3-cd)pyrene	30	308	280	312	0.00026	**2.2**	0.00016	54	9	99	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Iron	34	34	0	34	32.7	**25500**	1.2	28	100	100	55000	n	N	**5500**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Lead	405	405	0	489	1.38	**4430**	3.66	13.9	70	83	400	n	Y	**400**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Mercury	258	459	201	471	0.0183	**20.8**	0.01	1.9	43	97	5.6	n	Y	**0.56**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Naphthalene	71	78	7	312	0.00038	**28**	0.3	11.4	22	25	3.6	c	Y	**3.6**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
n-Butylbenzene	85	85	0	222	0.00036	**73.6**	0.00009	0.67	32	38	5.4	c	Y	**5.4**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > Surrogate RSL
n-Propylbenzene	68	69	1	222	0.007	**31.3**	0.00006	6.6	24	31	5.4	c	Y	**5.4**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > Surrogate RSL
Vanadium	33	33	0	37	1.22	**99.1**	13	22	89	89	390	n	N	**39**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Exhibit 4B)																			
bis(2-Ethylhexyl) phthalate	27	29	2	64	0.036	**0.932**	0.36	**54**	38	45	35	c	N	**35**	N	Y	No	B	Drop - <10% DL > CRQL
Cobalt	10	24	14	34	0.11	**2.29**	0.12	**22**	26	71	23	n	N	**2.3**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Cadmium	9	11	2	39	0.00999	**1.1**	0.009	**13**	23	28	70	n	N	**7**	N	Y	No	B	Drop - <5% DL > RSL
Thallium	7	33	26	34	0.01099	**0.05**	1.1	**220**	21	97	5.1	n	N	**0.51**	N	N	No	T	Drop - not used at site, withdrawn RSL
Chrysene	70	70	2	312	0.00037	**6.29**	0.00025	**54**	21	22	15	c	N	**15**	N	Y	No	B	Drop - <10% DL > CRQL
Dibenzofuran	11	16	5	75	0.00062	0.24	0.00059	**54**	15	21	78	n	N	**7.8**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
Dieldrin	5	18	13	38	0.00035	**0.0057**	0.00014	**0.22**	13	47	0.03	c	N	**0.03**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aldrin	3	4	1	38	0.0014	**0.0056**	0.00016	**0.11**	8	11	0.029	c	N	**0.029**	N	Y	No	B	Drop - <5% DL > RSL
alpha-BHC	3	4	1	38	0.00018	**0.0043**	0.00011	**0.11**	8	11	0.077	c	N	**0.077**	N	Y	No	B	Drop - <5% DL > RSL
delta-BHC	2	3	1	38	0.0005	**0.0038**	0.00007	**0.11**	5	8	0.077	c	N	**0.077**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
Tetrachloroethene	16	55	39	287	0.0005	**0.87**	0.00013	**12**	4	19	0.55	c	Y	**0.55**	Y	Y	No	B	Drop - >10 Level IV DLs < RSL
Toxaphene	1	16	15	38	0.44	**0.44**	0.0048	**11**	3	42	0.44	c	N	**0.44**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Nitrobenzene	2	17	15	64	0.17	**2.7**	0.36	**54**	3	27	4.8	c	N	**4.8**	N	Y	No	B	Drop - <10% DL > CRQL
Heptachlor epoxide	1	2	1	38	0.0057	**0.0057**	0.00008	**0.11**	3	5	0.053	c	N	**0.053**	N	Y	No	B	Drop - <5% DL > RSL
Selenium	1	2	1	39	0.9	**0.9**	0.26	**88**	3	5	390	n	N	**39**	N	Y	No	B	Drop - <5% DL > RSL
Trichloroethene	7	14	7	287	0.002	**0.96**	0.00014	**12**	2	5	2.8	c	N	**2.8**	N	Y	No	B	Drop - <5% DL > RSL
Bromomethane	5	29	24	285	0.002	**0.46**	0.00045	**12**	2	10	7.3	n	N	**0.73**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Hexachlorobenzene	1	64	63	64	0.24	**0.24**	0.36	**54**	2	100	0.3	c	N	**0.3**	N	Y	No	B	Drop - <10% DL > CRQL
4-Chloroaniline	1	8	7	64	1.4	**1.4**	0.36	**54**	2	13	2.4	c	N	**2.4**	N	Y	No	B	Drop - <10% DL > CRQL
2,4-Dinitrophenol	1	6	5	64	1.7	**1.7**	0.87	**110**	2	9	120	n	N	**12**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,6-Dinitrotoluene	1	6	5	64	3.6	**3.6**	0.36	**54**	2	9	61	n	N	**6.1**	N	Y	No	B	Drop - <10% DL > CRQL
4-Nitrophenol	1	5	4	64	2.1	**2.1**	0.87	**110**	2	8	120	n	N	**120**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
2,4,6-Trichlorophenol	1	3	2	64	0.6	**0.6**	0.36	**54**	2	5	44	c	N	**44**	N	Y	No	B	Drop - <10% DL > CRQL
4-Chlorophenyl-phenylether	1	3	2	64	0.32	**0.32**	0.36	**54**	2	5	310	n	N	**31**	N	Y	No	B	Drop - <10% DL > CRQL

Exhibit 4A
Revised COPC Screening - Quad 3
(Originally Table 4.4 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Carbon tetrachloride	4	53	49	287	0.002	**2.7**	0.00008	**12**	1	18	0.61	c	Y	**0.61**	Y	Y	No	B	Drop - >10 Level IV DLs < RSL
Chloroform	4	50	46	287	0.005	**1.6**	0.00005	**12**	1	17	0.29	c	Y	**0.29**	Y	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2-Dichloropropane	2	27	25	287	0.09	**0.13**	0.00006	**12**	1	9	0.89	c	N	**0.89**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Bromodichloromethane	1	49	48	287	0.0005	**0.0005**	0.00004	**12**	0	17	0.27	c	N	**0.27**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,1,2-Trichloroethane	1	26	25	287	0.05	**0.05**	0.00009	**12**	0.3	9	1.1	c	N	**1.1**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1221	1	339	338	399	0.042	**0.042**	0.0017	**418**	0	85	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1248	1	335	334	399	0.016	**0.016**	0.0017	**418**	0	84	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,4-Dinitrotoluene	0	11	11	64			0.36	**54**	0	17	1.6	c	N	**1.6**	N	Y	No	B	Drop - <10% DL > CRQL
Benzo(b/k)fluoranthene	0	3	3	3			10	**54**	0	100	0.15	c	N	**0.15**	N	Y	No	B	Drop - All ND in Pre-Removal Samples
N-Nitroso-di-n-propylamine	0	64	64	64			0.36	**54**	0	100	0.069	c	N	**0.069**	N	Y	No	B	Drop - <10% DL > CRQL
Aroclor-1232	0	335	335	399			0.0017	**418**	0	84	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1242	0	334	334	399			0.0017	**418**	0	84	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2-Dibromo-3-chloropropane	0	8	8	20			0.00083	**0.06**	0	40	0.0054	c	N	**0.0054**	N	Y	No	B	Drop - <10% DL > CRQL
2-Nitroaniline	0	23	23	64			0.366	**54**	0	36	610	n	N	**61**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Vinyl chloride	0	88	88	285			0.00006	**12**	0	31	0.06	c	N	**0.06**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2,3-Trichloropropane	0	3	3	13			0.00028	**12**	0	23	0.005	c	N	**0.005**	N	Y	No	B	Drop - All ND in Pre-Removal Samples
Pentachlorophenol	0	61	61	64			0.87	**110**	0	95	0.89	c	N	**0.89**	N	Y	No	B	Drop - <10% DL > CRQL
3,3'-Dichlorobenzidine	0	12	12	64			0.36	**54**	0	19	1.1	c	N	**1.1**	N	Y	No	B	Drop - <10% DL > CRQL
1,1,1,2-Tetrachloroethane	0	2	2	13			0.0002	**12**	0	15	1.9	c	N	**1.9**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,1-Dichloropropene	0	2	2	13			0.00016	**12**	0	15	1.7	c	N	**1.7**	N	Y	No	B	Retain as Qualatative COPC
2,2-Dichloropropane	0	2	2	13			0.00011	12	0	15	1.7	c	N	**1.7**	N	Y	No	B	Drop - <10% DL > CRQL
Bromochloromethane	0	2	2	13			0.00027	**12**	0	15	0.27	c	N	**0.27**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
1,2-Dichloroethane	0	40	40	287			0.00005	**12**	0	14	0.43	c	N	**0.43**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2-Dibromoethane	0	2	2	20			0.0002	**0.06**	0	10	0.034	c	N	**0.034**	N	Y	No	B	Drop - <10% DL > CRQL
Hexachlorobutadiene	0	5	5	72			0.00018	**54**	0	7	6.2	c	N	**6.2**	N	Y	No	B	Drop - <10% DL > CRQL
2-Nitrophenol	0	3	3	64			0.36	**54**	0	5	120	n	N	**120**	N	Y	No	B	Drop - <10% DL > CRQL
1,2,4-Trichlorobenzene	0	2	2	74			0.00024	**54**	0	3	22	c	N	**22**	N	Y	No	B	Drop - <5% DL > RSL
2-Hexanone	0	2	2	74			0.00083	**30**	0	3	210	n	N	**21**	N	Y	No	B	Drop - <10% DL > CRQL
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
sec-Butylbenzene	80	80		223	0.0024	**53.7**	0.00006	6.6	30	36	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Phenanthrene	91	91		312	0.0025	**49.8**	0.00075	54	26	29	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
tert-Butylbenzene	60	60		222	0.00081	**33.6**	0.00005	6.6	24	27	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	67	67		223	0.00017	**53.2**	0.00008	2.8	23	30	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endrin ketone	9	9		38	0.0011	**0.31**	0.00014	0.22	21	24	18	n	N	**1.8**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	5	5		28	0.001	**0.018**	0.00009	0.11	18	18	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	42	42		312	0.00098	**4.56**	0.00064	54	12	13	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan II	4	4		38	0.00016	**0.0025**	0.00014	0.22	11	11	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endrin aldehyde	3	3		38	0.00033	**0.05**	0.00012	0.22	8	8	18	n	N	**1.8**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	19	19		312	0.00019	**9.72**	0.00024	54	6	6	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan I	2	2		38	0.00036	**0.0026**	0.00006	0.11	5	5	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
alpha-Chlordane	1	1		28	0.00041	**0.00041**	0.0001	0.11	4	4	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
3/4-Methylphenol	1	1		35	0.84	**0.84**	0.36	54	3	3	3100	n	N	**310**	N	N	No	C	Drop - Max Detect and DL < Surrogate RSL
Endosulfan sulfate	1	1		38	0.004	**0.004**	0.00011	0.22	3	3	370	n	N	**37**	N	N	No	C	Drop - Max Detect and DL < Surrogate RSL
1,3-Dichlorobenzene	3	3		280	0.69	**13.9**	0.00007	12	1	1	1900	n	N	**190**	N	N	No	C	Drop - Max Detect and DL < Surrogate RSL
trans-1,3-Dichloropropene	1	10	9	287	0.0005	**0.0005**	0.00011	12	0	3	1.7	c	N	**1.7**	N	Y	No	C, B	Drop - Max Detect and <5% DL < Surrogate RSL
3-Nitroaniline	0	0		64			0.37	54	0	0	610	n	N	**61**	N	N	No	B	Drop - Max Detect and DL < Surrogate RSL
cis-1,3-Dichloropropene	0	9	9	287			0.00003	12	0	3	1.7	c	N	**1.7**	N	Y	No	C	Drop - No Detects and <5% DL > Surrogate RSL
Constituents Screened Out on Basis of Low # Records																			
Tellurium	0	0		1			110	110		0							No	A	Drop - No RSL and less than 10 records sitewide
Titanium	1	1		1	410	410			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Yttrium	0	0		1			22	22		0							No	A	Drop - No RSL and less than 10 records sitewide
Constituents Screened Out on Basis of Low Frequency of Detection																			
4-Chloro-3-methylphenol	2	2		64	0.16	**8.4**	0.36	**54**	3	3	6100	n	N	**610**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Di-n-octylphthalate	2	2		64	0.013	0.017	0.36	**54**	3	3							No	F	Drop - <5% Detects and No RSL
Isophorone	2	2		64	0.068	**7.8**	0.36	**54**	3	3	510	c	N	**510**	N	N	No	C	Drop - <5% Detects and All DL < RSL
beta-BHC	1	1		38	0.003	**0.003**	0.00018	**0.11**	3	3	0.27	c	N	**0.27**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2-Chloroethyl vinyl ether	5	5		211	0.16	1.1	0.05	**6.6**	2	2							No	F	Drop - <5% Detects and No RSL
Chloromethane	5	5		285	0.06	**0.54**	0.00006	**12**	2	2	120	c	N	**120**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2,2'-Oxybis(1-Chloropropane)	1	1		61	0.042	0.042	0.36	**11.4**	2	2							No	F	Drop - <5% Detects and No RSL

Exhibit 4A
Revised COPC Screening - Quad 3
(Originally Table 4.4 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
2,4-Dimethylphenol	1	1		64	3.8	**3.8**	0.36	**54**	2	2	1200	n	N	**120**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2-Methylphenol	1	1		64	0.56	**0.56**	0.36	**54**	2	2	3100	n	N	**310**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Dimethylphthalate	1	1		64	0.43	0.43	0.36	**54**	2	2							No	F	Drop - <5% Detects and No RSL
N-Nitrosodiphenylamine/Diphenylamine	1	1		64	1.3	**1.3**	0.36	**54**	2	2	99	c	N	**99**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Phenol	1	1		64	0.24	**0.24**	0.36	**54**	2	2	18000	n	N	**1800**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Bromoform	5	5		287	0.1	**0.32**	0.00027	**12**	1	2	61	c	N	**61**	N	N	No	C	Drop - <5% Detects and All DL < RSL
1,2-Dichlorobenzene	3	3		285	0.71	**1.5**	0.00006	**12**	1	1	1900	n	N	**190**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Chlorobenzene	2	2		287	0.0007	**1.4**	0.00005	**12**	1	1	290	n	N	**29**	N	N	No	C	Drop - <5% Detects and All DL < RSL
1,1,1-Trichloroethane	1	1		287	0.09	**0.09**	0.00016	**12**	0	0	8700	n	N	**870**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2,4-Dichlorophenol	0	2	2	64			0.36	**54**	0	3	180	n	N	**18**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
2-Chlorophenol	0	2	2	64			0.36	**54**	0	3	390	n	N	**39**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
4-Nitroaniline	0	2	2	64			0.366	**54**	0	3	24	c	N	**24**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
bis(2-Chloroethoxy) methane	0	2	2	64			0.36	**54**	0	3	180	n	N	**18**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
Hexachlorocyclopentadiene	0	2	2	64			0.36	**54**	0	3	370	n	N	**37**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
Hexachloroethane	0	2	2	64			0.36	**54**	0	3	35	c	N	**35**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1-Dichloroethane	0	3	3	287			0.00005	**12**	0	1	3.3	c	N	**3.3**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
trans-1,2-Dichloroethene	0	1	1	224			0.00005	**12**	0	0	110	n	N	**11**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1-Biphenylarsenic	0	0		12			0.33	**0.66**	0	0							No	F	Drop - No Detects and No RSL
1,1-Dichloroethene	0	0		287			0.00007	**12**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichlorobenzene	0	0		10			0.00015	0.05999	0	0	49	n	N	**4.9**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
1,3-Dichloropropane	0	0		13			0.00006	**12**	0	0	1.7	c	N	**1.7**	N	Y	No	C	Drop - No Detects and All DL < RSL
2,2'-Chloroisopropylether	0	0		3			10	**54**	0	0							No	C	Drop - No Detects and All DL < RSL
2,3,4,6-Tetrachlorophenol	0	0		3			10	**54**	0	0	1800	n	N	**180**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,5-Trichlorophenol	0	0		64			0.366	**54**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloronaphthalene	0	0		64			0.36	**54**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorotoluene	0	0		13			0.00005	**12**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		64			0.36	**54**	0	0							No	F	Drop - No Detects and No RSL
4-Chlorotoluene	0	0		13			0.00009	**12**	0	0	5500	n	N	**550**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methyl-2-pentanone	0	0		74			0.00026	**30**	0	0	5300	n	N	**530**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	0	0		29			0.366	**11.4**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
Aroclor-1262	0	0		8			0.00209	**0.014**	0	0	0.22	c	N	**0.22**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromobenzene	0	0	0	13			0.00009	**12**	0	0	300	n	N	**30**	N	N	No	C	Drop - No Detects and All DL < RSL
Chlordane	0	0		10			0.00174	**0.0197**	0	0	1.6	c	N	**1.6**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroethane	0	0		285			0.00032	**12**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		63			0.005	**2.7**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		224			0.00008	**12**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromomethane	0	0		13			0.0002	**12**	0	0	25	n	N	**2.5**	N	Y	No	C	Drop - No Detects and All DL < RSL
Dichlorodifluoromethane	0	0		221			0.00007	**6.6**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	0	0		64			0.36	**54**	0	0	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Fluoride	0	0		10			0.254	**2.51**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
Molybdenum	0	0		1			22	**22**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
Tin	0	0		1			55	**55**	0	0	47000	n	N	**4700**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		222			0.00005	**6.6**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of N-flag (Tentatively Identified Compound)																			
Dimethylethyl Benzene Methanol	1	1		1	20	20			100	100							No	D	Drop - TIC
Dimethylnaphthalene (unspecified)	1	1		1	200	200			100	100							No	D	Drop - TIC
Ethylmethylbenzene (unspecified)	1	1		1	40	40			100	100							No	D	Drop - TIC
Methylphenanthrene (unspecified)	1	1		1	80	80			100	100							No	D	Drop - TIC
Nitrotricyclodecane (unspecified)	1	1		1	10	10			100	100							No	D	Drop - TIC
Trichlorofluoroethane (unspecified)	0	0		2			11	12	0	0							No	D	Drop - TIC
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	30	30		34	27.5	330000	1100	1400	88	88							No	E	Drop - Essential Nutrient
Magnesium	25	25		34	15.9	21000	1100	1400	74	74							No	E	Drop - Essential Nutrient
Potassium	19	19		34	13.8	538	4.88	4400	56	56							No	E	Drop - Essential Nutrient
Sodium	14	14		34	7.33	3210	3.78	1400	41	41							No	E	Drop - Essential Nutrient

Exhibit 4A
Revised COPC Screening - Quad 3
(Originally Table 4.4 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
1,3,5-Trimethylbenzene	77	77		223	0.0022	**58.9**	0.00004	2.8	28	35	780	n	N	**78**	N	N	YES	Y	Drop - Max Detect and DL < RSL
2-Butanone (MEK)	15	15		74	0.0027	**0.52**	0.0017	120	16	20	28000	n	N	**2800**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDD	3	3		38	0.00022	**0.0026**	0.00011	0.22	8	8	2	c	N	**2**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDE	2	2		38	0.0013	**0.0037**	0.00011	0.22	5	5	1.4	c	N	**1.4**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDT	8	8		38	0.00051	**0.057**	0.00017	0.22	21	21	1.7	c	N	**1.7**	N	N	No	G	Drop - Max Detect and DL < RSL
Acenaphthene	15	15		311	0.00011	**4.86**	0.00023	54	5	5	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Acetone	36	36		74	0.007	**2.2**	0.011	120	38	49	61000	n	N	**6100**	N	N	No	G	Drop - Max Detect and DL < RSL
Anthracene	46	46		312	0.00026	**9.47**	0.00047	54	14	15	17000	n	N	**1700**	N	N	No	G	Drop - Max Detect and DL < RSL
Barium	72	72		165	1.1	**720**	44	126	43	44	15000	n	N	**1500**	N	N	No	G	Drop - Max Detect and DL < RSL
Beryllium	10	10		34	0.04399	**0.13**	0.10199	11	26	29	160	n	N	**16**	N	N	No	G	Drop - Max Detect and DL < RSL
Butylbenzylphthalate	10	10		64	0.03299	**6.4**	0.36	54	16	16	260	c	N	**260**	N	N	No	G	Drop - Max Detect and DL < RSL
Carbon disulfide	7	7		74	0.00008	**0.005**	0.00005	30	9	9	820	n	N	**82**	N	N	No	G	Drop - Max Detect and DL < RSL
Copper	33	33		37	0.31	**167**	0.611	22	89	89	3100	n	N	**310**	N	N	No	G	Drop - Max Detect and DL < RSL
Cyanide	4	4		24	0.034	**0.34**	0.026	2.2	13	17	1600	n	N	**160**	N	N	No	G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	16	16		64	0.034	**46.1**	0.37	54	25	25	6100	n	N	**610**	N	N	No	G	Drop - Max Detect and DL < RSL
Endrin	4	4		38	0.0003	**0.044**	0.00009	0.22	11	11	18	n	N	**1.8**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluoranthene	49	49		312	0.0014	**6.08**	0.00061	54	14	16	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluorene	15	15		312	0.00011	**5.27**	0.0005	54	5	5	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
gamma-BHC (Lindane)	4	4		38	0.00059	**0.016**	0.00008	0.11	11	11	0.52	c	N	**0.52**	N	N	No	G	Drop - Max Detect and DL < RSL
Heptachlor	3	3		38	0.00009	**0.022**	0	0.11	8	8	0.11	c	N	**0.11**	N	N	No	G	Drop - Max Detect and DL < RSL
Isopropylbenzene	51	51		222	0.0062	**86.2**	0.00003	3.1	21	23	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < RSL
m&p-Xylene	73	73		223	0.0016	**20.6**	0.00009	12	25	33	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Manganese	33	33		34	2.3	**127**	5.1	5.1	94	97	1800	n	N	**180**	N	N	No	G	Drop - Max Detect and DL < RSL
Methoxychlor	9	9		38	0.001	**0.018**	0.00019	1.1	24	24	310	n	N	**31**	N	N	No	G	Drop - Max Detect and DL < RSL
Methyl mercury	7	7		7	0.00014	**0.0103**			100	100	7.8	n	N	**0.78**	N	N	No	G	Drop - Max Detect and DL < RSL
Nickel	29	29		37	0.36	**39.9**	0.855	44	78	78	1500	n	N	**150**	N	N	No	G	Drop - Max Detect and DL < RSL
o-Xylene	41	41		224	0.00047	**24**	0.00006	11	17	18	3800	n	N	**380**	N	N	No	G	Drop - Max Detect and DL < RSL
Pyrene	84	84		312	0.00088	**15.1**	0.00037	54	24	27	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < RSL
Silver	6	6		39	0.004	**0.58**	0.004	22	15	15	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Styrene	39	39		287	0.0005	**36**	0.00008	12	11	14	6300	n	N	**630**	N	N	No	G	Drop - Max Detect and DL < RSL
Toluene	8	8		34	0.01099	**0.05**	1.1	220	21	24	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < RSL
Xylenes (unspecified)	41	41		287	0.00017	**20.2**	0.00004	12	10	14	630	n	N	**63**	N	N	No	G	Drop - Max Detect and DL < RSL
Strontium	13	13		64	0.0004	**8.1**	0.005	2.7	17	20	47000	n	N	**4700**	N	N	No	G, A	Drop - Max Detect and DL < RSL
Zinc	34	34		37	0.68	**129**	5.3	22	86	92	23000	n	N	**2300**	N	N	No	G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs.
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.

Highlighted Cells Key:
- Frequency Detection < 5%
- Constituent without RSL - Surrogate Chemical Identified
- Change to RSL between April 2009 and November 2010

COPC screening code (from HHBRA):
- A Low record count <10 site wide
- B DLs above adjusted residential RSL
- C Less than 5% detection frequency including DLs above adjusted RSL
- D Parameter with N flag
- E Essential nutrient
- F Less than 5% detection frequency and no RSL
- G Max detect and max DL below adjusted residential RSL
- T Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
- Y Retain as COPC

Exhibit 4B
Screening Refinements for "B" Flagged Parameters - Quad 3

Parameter	CRQL Medium[1] (mg/kg)	Residential RSL [2] (mg/kg)	# of records	# DL above CRQL	% DL above CRQL [3]	# DL above RSL	% DL above RSL [4]	# Level 4 data records	# Level 4 data DL below RSL [5]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
1,1,2,2-Tetrachloroethane	0.25	0.56	287	52	18	40	14	74	64			Drop - >10 Level IV DLs < RSL
1,1,2-Trichloroethane	0.25	1.1	287	52	18	25	9	74	64			Drop - >10 Level IV DLs < RSL
1,1-Dichloropropene	0.25	1.7	13	2	15	2	15	11	9	100	1	Retain as Qualatative COPC
1,2,3-Trichloropropane	0.25	0.005	13	2	15	5	38	11	8	100	0	Drop - All ND in Pre-Removal Samples
1,2,4-Trichlorobenzene	0.25	22	74	64	86	2	3					Drop - <5% DL > RSL
1,2-Dibromo-3-chloropropane	0.25	0.0056	20	0	0	8	40					Drop - <10% DL > CRQL
1,2-Dibromoethane	0.25	0.034	20	0	0	2	10					Drop - <10% DL > CRQL
1,2-Dichloroethane	0.25	0.45	287	52	18	40	14	74	64			Drop - >10 Level IV DLs < RSL
1,2-Dichloropropane	0.25	0.89	287	52	18	25	9	74	64			Drop - >10 Level IV DLs < RSL
2-Hexanone	0.5	21	74	10	14	2	3					Drop - <10% DL > CRQL
2,2-Dichloropropane	0.25	1.7	13	2	15	2	15					Drop - <10% DL > CRQL
2,4,6-Trichlorophenol	5	44	64	5	8	2	3					Drop - <10% DL > CRQL
2,4-Dinitrophenol	10	12	64	9	14	5	8	64	59			Drop - >10 Level IV DLs < RSL
2,4-Dinitrotoluene	5	1.6	64	5	8	11	17					Drop - <10% DL > CRQL
2,6-Dinitrotoluene	5	6.1	64	5	8	5	8					Drop - <10% DL > CRQL
2-Nitroaniline	10	1.8	64	5	8	23	36	64	41			Drop - >10 Level IV DLs < RSL
2-Nitrophenol	5	12	64	5	8	3	5					Drop - <10% DL > CRQL
3,3'-Dichlorobenzidine	5	1.1	64	5	8	12	19					Drop - <10% DL > CRQL
3-Nitroaniline	10	61	64	5	8	0	0					Drop - <10% DL > CRQL
4-Chloroaniline	5	2.4	64	5	8	7	11					Drop - <10% DL > CRQL
4-Chlorophenyl-phenylether	5	31	64	5	8	2	3					Drop - <10% DL > CRQL
4-Nitrophenol	10	12	64	9	14	4	6	64	60			Drop - >10 Level IV DLs < RSL
Aldrin	0.0017	0.029	38	27	71	1	3					Drop - <5% DL > RSL
alpha-BHC	0.0017	0.077	38	28	74	1	3					Drop - <5% DL > RSL
Aroclor-1221	0.033	0.14	399	387	97	338	85	81	61			Drop - >10 Level IV DLs < RSL
Aroclor-1232	0.033	0.14	399	386	97	335	84	81	64			Drop - >10 Level IV DLs < RSL
Aroclor-1242	0.033	0.22	399	386	97	334	84	81	65			Drop - >10 Level IV DLs < RSL
Aroclor-1248	0.033	0.22	399	385	96	334	84	81	65			Drop - >10 Level IV DLs < RSL
Benzo(b/k)fluoranthene	5	0.15	3	3	100	3	100	3	0	4	0	Drop - All ND in Pre-Removal Samples
bis(2-Ethylhexyl) phthalate	5	35	64	5	8	2	3					Drop - <10% DL > CRQL
Bromobenzene		30	13			0	0					Drop - <5% DL > RSL
Bromochloromethane	0.25	0.28	13	2	15	0	2					Drop - <5% DL > RSL
Bromodichloromethane	0.25	0.27	287	52	18	48	17	74	64			Drop - >10 Level IV DLs < RSL
Bromomethane	0.25	0.73	285	51	18	24	8	74	65			Drop - >10 Level IV DLs < RSL
Cadmium	5	7	39	2	5	2	5					Drop - <5% DL > RSL
Carbon tetrachloride	0.25	0.61	287	51	18	35	12	74	65			Drop - >10 Level IV DLs < RSL
Chloroform	0.25	0.29	287	52	18	46	16	74	64			Drop - >10 Level IV DLs < RSL
Chrysene	5	15	312	8	3	2	1					Drop - <10% DL > CRQL
Cobalt	5	2.3	34	13	38	14	41	34	20			Drop - >10 Level IV DLs < RSL
delta-BHC	0.0017	0.077	38	29	76	1	3	38	37			Drop - >10 Level IV DLs < RSL
Dibenzofuran	5	7.8	75	5	7	5	7	75	70			Drop - >10 Level IV DLs < RSL
Dieldrin	0.0033	0.03	38	28	74	13	34	38	25			Drop - >10 Level IV DLs < RSL
Heptachlor epoxide	0.0017	0.053	38	30	79	1	3					Drop - <5% DL > RSL
Hexachlorobenzene	5	0.3	64	5	8	63	98					Drop - <10% DL > CRQL
Hexachlorobutadiene	5	6.2	72	5	7	5	7					Drop - <10% DL > CRQL
N-Nitroso-di-n-propylamine	5	0.069	64	5	8	64	100					Drop - <10% DL > CRQL
Nitrobenzene	5	4.8	64	5	8	5	8					Drop - <10% DL > CRQL
Pentachlorophenol	10	0.89	64	0	0	61	95					Drop - <10% DL > CRQL
Selenium	3.5	39	39	2	5	1	3					Drop - <5% DL > RSL
Tetrachloroethene	0.25	0.55	287	52	18	40	14	74	64			Drop - >10 Level IV DLs < RSL
Thallium	2.5	0.51	34	15	44	26	76	34	8			Drop - Not used at site
Toxaphene	0.017	0.44	38	33	87	15	39	38	23			Drop - >10 Level IV DLs < RSL
Trichloroethene	0.25	2.8	287	52	18	8	3					Drop - <5% DL > RSL
Vinyl chloride	0.25	0.06	285	52	18	88	31	74	63			Drop - >10 Level IV DLs < RSL

Notes:
(1) Values are the current EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQL).
(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.1.
(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQLs.
(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSLs.
(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL.

Exhibit 5A
Revised COPC Screening - Quad 4
(Originally Table 4.5 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
1,2,4-Trimethylbenzene	24	24	0	167	0.00016	**15.4**	0.00011	0.07	11	14	62	n	N	**6.2**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
1-Methyl Naphthalene	19	19	0	145	0.41999	**26.9**	0.3	1.7	13	13	22	c	Y	**22**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aluminum	35	35	0	35	462	**30200**	0.7	133	100	100	77000	n	N	**7700**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Antimony	25	32	7	39	0.023	**22**	1.1	40.0	56	82	31	n	N	**3.1**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1254	26	285	259	364	0.0032	**9.2**	0.0017	110	7	78	0.22	c	Y	**0.22**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1260	4	265	261	364	25	**160**	0.0021	12	1	73	0.22	c	Y	**0.22**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1268	111	325	214	354	0.0036	**240**	0.0021	3.36	27	92	0.22	c	Y	**0.22**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Arsenic	18	32	14	38	0.25999	**15.7**	0.18	6.0	47	84	0.39	c	Y	**0.39**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	44	205	161	207	0.00068	**20**	0.0005	6.8	20	99	0.15	c	Y	**0.15**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	37	205	168	207	0.00052	**16**	0.0001	6.8	18	99	0.015	c	Y	**0.015**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	34	195	161	197	0.00064	**13**	0.0003	6.8	17	99	0.15	c	Y	**0.15**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(k)fluoranthene	27	30	3	197	0.00031	**4.08**	0.0002	6.8	13	15	1.5	c	Y	**1.5**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Chloroform	10	12	2	187	0.0012	**0.8**	0.0001	1.3	4	6	0.29	c	Y	**0.29**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Chromium	37	38	1	38	0.56999	**54**	2.5	2.5	79	100	0.29	c	Y	**0.29**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Chrysene	45	45	0	207	0.00041	**30**	0.0003	6.8	21	22	15	c	Y	**15**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Cobalt	18	25	7	35	0.035	**2.9**	0.43	33.3	51	71	23	n	N	**2.3**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	23	203	180	207	0.0004	**5.5**	0.0003	6.8	11	98	0.015	c	Y	**0.015**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Indeno(1,2,3-cd)pyrene	28	204	176	207	0.00028	**6**	0.0002	6.8	13	99	0.15	c	Y	**0.15**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Iron	35	35	0	35	194	**35900**	1.7	66.6	97	100	55000	n	N	**5500**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Lead	261	261	0	325	1.14	**1200**	5	20	73	80	400	n	Y	**400**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Manganese	34	34	0	35	2.27	**481**	3.8	3.8	91	97	1800	n	N	**180**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Mercury	250	337	87	388	0.0076	**142**	0.052	0.84	54	87	5.6	n	Y	**0.56**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Naphthalene	36	39	3	207	0.00037	**8.04**	0.3	6.8	16	19	3.6	c	Y	**3.6**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
n-Butylbenzene	30	30	0	167	0.07	**50.9**	0.00009	0.07	15	18	5.4	c	Y	**5.4**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > Surrogate RSL
Tetrachloroethene	6	7	1	187	0.00057	**1.8**	0.0001	1.3	3	4	0.55	c	Y	**0.55**	Y	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Vanadium	25	25	0	39	0.56	**79.8**	2	33.3	64	64	390	n	N	**39**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Zinc	30	30	0	39	0.94999	**3960**	0.57	20.0	74	77	23000	n	N	**2300**	Y	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Exhibit 5B)																			
Thallium	17	35	18	35	0.00899	**0.048**	1.5	**180**	40	100	5.1	n	N	**0.51**	N	N	No	T	Drop - not used at site, withdrawn RSL
4,4'-DDT	11	12	1	37	0.00015	**0.37**	0.0002	**4.8**	30	32	1.7	c	N	**1.7**	N	Y	No	B	Drop - <5% DL > RSL
Aldrin	4	6	2	37	0.00012	**0.011**	0.0002	**1.4**	11	16	0.029	c	N	**0.029**	N	Y	No	B	Drop - <5% DL > RSL
Endrin	4	5	1	37	0.00016	**0.011**	0.00009	**4**	11	14	18	n	N	**1.8**	N	Y	No	B	Drop - <5% DL > RSL
Benzo(b/k)fluoranthene	1	10	9	10	0.15	**0.15**	0.35	**6.8**	10	100	0.15	c	N	**0.15**	N	Y	No	B	Drop - <10% DL > CRQL
Endrin ketone	3	4	1	37	0.00073	**1.7**	0.00039	**2**	8	11	18	n	N	**1.8**	N	Y	No	B	Drop - <5% DL > Surrogate RSL
Hexachlorobenzene	2	26	24	26	0.038	**0.093**	0.35	**6.8**	8	100	0.3	c	N	**0.3**	N	Y	No	B	Drop - <10% DL > CRQL
Dieldrin	1	6	5	37	0.00209	**0.00209**	0.00014	**1.9**	3	16	0.03	c	N	**0.03**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
alpha-BHC	1	2	1	37	0.0015	**0.0015**	0.00011	**0.41**	3	5	0.077	c	N	**0.077**	N	Y	No	B	Drop - <5% DL > RSL
beta-BHC	1	2	1	37	0.00054	**0.00054**	0.00018	**0.82**	3	5	0.27	c	N	**0.27**	N	Y	No	B	Drop - <5% DL > RSL
delta-BHC	1	2	1	37	0.0026	**0.0026**	0.00007	**0.82**	3	5	0.077	c	N	**0.077**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
Heptachlor	1	2	1	37	0.0052	**0.0052**	0.00012	**0.82**	3	5	0.11	c	N	**0.11**	N	Y	No	B	Drop - <5% DL > RSL
Heptachlor epoxide	1	2	1	37	0.00051	**0.00051**	0.00008	**0.82**	3	5	0.053	c	N	**0.053**	N	Y	No	B	Drop - <5% DL > RSL
2,4-Dinitrotoluene	0	23	23	26			0.35	**6.8**	0	88	1.6	c	N	**1.6**	N	Y	No	B	Drop - <10% DL > CRQL
4,6-Dinitro-2-methylphenol	0	23	23	23			0.86	**14**	0	100	4.9	n	N	**0.49**	N	Y	No	B	Drop - <10% DL > CRQL
Benzidine	0	7	7	7			3.19	**9.57**	0	100	0.0005	c	N	**0.0005**	N	Y	YES	B, Q, A	Retain as Qualatative COPC
bis(2-Chloroethyl) ether	0	26	26	26			0.35	**6.8**	0	100	0.21	c	N	**0.21**	N	Y	No	B	Drop - <10% DL > CRQL
Chlordane	0	1	1	1			10	**10**	0	100	1.6	c	N	**1.6**	N	Y	YES	B, Q	Retain as Qualatative COPC
N-Nitrosodimethylamine	0	7	7	7			0.399	**1.2**	0	100	0.0023	c	N	**0.0023**	N	Y	YES	B, Q, A	Retain as Qualatative COPC
N-Nitroso-di-n-propylamine	0	26	26	26			0.35	**6.8**	0	100	0.069	c	N	**0.069**	N	Y	No	B	Drop - <10% DL > CRQL
Aroclor-1221	0	273	273	364			0.0017	**14.2**	0	75	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1232	0	269	269	364			0.0017	**12**	0	74	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1242	0	265	265	364			0.0017	**12**	0	73	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1248	0	264	264	364			0.0017	**12**	0	73	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1016	0	259	259	364			0.0017	**12**	0	71	3.9	n	N	**0.39**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Toxaphene	0	13	13	37			0.0051	**180**	0	35	0.44	c	N	**0.44**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2-Dibromo-3-chloropropane	0	8	8	25			0.00085	**0.07**	0	32	0.0054	c	N	**0.0054**	N	Y	No	B	Drop - <10% DL > CRQL
1,2-Dibromoethane	0	8	8	25			0.0002	**0.07**	0	32	0.034	c	N	**0.034**	N	Y	No	B	Drop - <10% DL > CRQL
Nitrobenzene	0	6	6	26			0.35	**6.8**	0	23	4.8	c	N	**4.8**	N	Y	No	B	Drop - <10% DL > CRQL
2-Nitroaniline	0	5	5	26			0.399	**6.8**	0	19	610	n	N	**61**	N	Y	No	B	Drop - <10% DL > CRQL
3-Nitroaniline	0	5	5	26			0.399	**6.8**	0	19	610	n	N	**61**	N	N	No	B	Drop - <10% DL > CRQL
Vinyl chloride	0	19	19	179			0.00006	**1.3**	0	11	0.06	c	N	**0.06**	N	Y	No	B	Drop - <10% DL > CRQL

Exhibit 5A
Revised COPC Screening - Quad 4
(Originally Table 4.5 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
3,3'-Dichlorobenzidine	0	2	2	26			0.35	**6.8**	0	8	1.1	c	N	**1.1**	N	Y	No	B	Drop - <10% DL > CRQL
Pentachlorophenol	0	23	23	26			0.86	**14**	0	88	0.89	c	N	**0.89**	N	Y	No	B	Drop - <10% DL > CRQL
Aroclor-1262	0	1	1	17			0.00209	**0.3**	0	6	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
Dibenzofuran	12	12		47	0.00048	**0.13**	0.00059	**6.8**	26	26	78	n	N	**7.8**	**N**	N	No	N	Drop - Max Detect and DL < Surrogate RSL
Phenanthrene	42	42		207	0.0008	**13.9**	0.00075	**6.8**	18	20	1700	n	N	**170**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	37	37		207	0.00083	**9.4**	0.00064	**6.8**	17	18	1700	n	N	**170**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan II	6	6		37	0.0011	**0.037**	0.00014	**2.3**	16	16	370	n	N	**37**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
sec-Butylbenzene	27	27		167	0.00052	**143**	0.00007	**0.07**	15	16	2100	n	N	**210**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	5	5		36	0.00013	**0.015**	0.00009	**0.04**	14	14	1.6	c	N	**1.6**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan I	5	5		37	0.00008	**0.02**	0.00006	**0.82**	14	14	370	n	N	**37**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Propylbenzene	20	20		167	0.00009	**5.1**	0.00006	**1.2**	11	12	5.4	c	N	**5.4**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	19	19		167	0.07	**133**	0.00009	**0.25**	11	11	5000	n	N	**500**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
tert-Butylbenzene	18	18		167	0.00025	**27.2**	0.00005	**0.29**	10	11	2100	n	N	**210**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	15	15		207	0.0002	**0.81**	0.00024	**6.84**	7	7	1700	n	N	**170**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
alpha-Chlordane	1	1		36	0.0034	**0.0034**	0.0001	**0.04**	3	3	1.6	c	N	**1.6**	**N**	N	No	C	Drop - Max Detect and DL < Surrogate RSL
Endrin aldehyde	1	1		36	0.00015	**0.00015**	0.00012	**0.079**	3	3	18	n	N	**1.8**	**N**	N	No	C	Drop - Max Detect and DL < Surrogate RSL
1,3-Dichlorobenzene	2	2		190	0.11999	**0.14**	0.00007	**1.3**	1	1	1900	n	N	**190**	**N**	N	No	C	Drop - Max Detect and DL < Surrogate RSL
4-Nitrophenol	0	1	1	26			0.86	**14**	0	4	120	n	N	**120**	N	Y	No	B, C	Drop - No Detects and <5% DL > Surrogate RSL
1,1-Dichloropropene	0	0		26			0.00017	**0.072**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2,2-Dichloropropane	0	0		26			0.00011	**0.072**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2-Nitrophenol	0	0		26			0.35	**6.8**	0	0	120	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
3/4-Methylphenol	0	0		10			0.35	**6.8**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Chlorophenyl-phenylether	0	0		26			0.35	**6.8**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Bromochloromethane	0	0		26			0.00027	**0.072**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
cis-1,3-Dichloropropene	0	0		187			0.00003	**1.3**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan sulfate	0	0		37			0.00011	**0.82**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
trans-1,3-Dichloropropene	0	0		187			0.00011	**1.3**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Constituents Screened Out on Basis of Low # Records																			
Hexadecenoic Acid	1	1		1	0.2	0.2			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Titanium	1	1		1	94	94			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Yttrium	0	0		1			2	2		0							No	A	Drop - No RSL and less than 10 records sitewide
Constituents Screened Out on Basis of Low Frequency of Detection																			
Isophorone	1	1		26	0.037	**0.037**	0.35	**6.8**	4	4	510	c	N	**510**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Phenol	1	1		26	0.28	**0.28**	0.35	**6.8**	4	4	18000	n	N	**1800**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Bromomethane	7	9	2	179	0.09	**0.25999**	0.00046	**1.3**	3	5	7.3	n	N	**0.73**	**N**	Y	No	C	Drop - <5% Detects and <5% DLs > RSL
4,4'-DDD	1	1		37	0.0002	**0.0002**	0.00011	**1.6**	3	3	2	c	N	**2**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Carbon tetrachloride	4	7	3	187	0.0012	**0.17**	0.00008	**1.3**	2	4	0.61	c	N	**0.61**	**N**	Y	No	C	Drop - <5% Detects and <5% DLs > RSL
1,2-Dichlorobenzene	4	4		193	0.07999	**0.3**	0.00006	**1.3**	2	2	1900	n	N	**190**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Chloromethane	3	3		179	0.05	**0.20999**	0.00006	**1.3**	2	2	120	c	N	**120**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Benzene	3	5	2	187	0.00037	0.00093	0.00016	**1.3**	2	3	1.1	c	N	**1.1**	N	Y	No	C, B	Drop - <5% Detects and <5% DLs > RSL
Trichloroethene	4	4		187	0.002	**0.1**	0.00015	**1.3**	2	2	2.8	c	N	**2.8**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Chlorobenzene	3	3		187	0.083	**0.98**	0.00005	**1.3**	2	2	290	n	N	**29**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Styrene	3	3		187	0.11999	**0.609**	0.00008	**1.3**	2	2	6300	n	N	**630**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
1,4-Dichlorobenzene	3	3		193	0.0002	**0.25**	0.00011	**1.3**	2	2	2.4	c	N	**2.4**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
o-Xylene	2	2		168	0.38999	**0.68199**	0.00006	**1.3**	1	1	3800	n	N	**380**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
trans-1,2-Dichloroethene	2	2		168	0.07	**0.07**	0.00005	**1.3**	1	1	110	n	N	**11**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
1,2-Dichloropropane	1	3	2	187	0.01	**0.01**	0.00007	**1.3**	1	2	0.89	c	N	**0.89**	**N**	Y	No	C, B	Drop - <5% Detects and <5% DLs > RSL
Dibromochloromethane	1	3	2	187	0.05	**0.05**	0.00018	**1.3**	1	2	0.68	c	N	**0.68**	**N**	Y	No	C, B	Drop - <5% Detects and <5% DLs > RSL
2,4-Dinitrophenol	0	1	1	26			0.86	**14**	0	4	120	n	N	**12**	N	Y	No	C	Drop - No Detects and <5% DLs > RSL
2,6-Dinitrotoluene	0	1	1	26			0.35	**6.8**	0	4	61	n	N	**6.1**	N	Y	No	C	Drop - No Detects and <5% DLs > RSL
4-Chloroaniline	0	1	1	26			0.35	**6.8**	0	4	2.4	c	N	**2.4**	N	Y	No	C	Drop - No Detects and <5% DLs > RSL
Hexachlorobutadiene	0	1	1	43			0.00019	**6.8**	0	2	6.2	c	N	**6.2**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
Bromodichloromethane	0	3	3	187			0.00004	**1.3**	0	2	0.27	c	N	**0.27**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1,2,2-Tetrachloroethane	0	2	2	187			0.00009	**1.3**	0	1	0.56	c	N	**0.56**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1,2-Trichloroethane	0	2	2	187			0.00009	**1.3**	0	1	1.1	c	N	**1.1**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,2-Dichloroethane	0	2	2	187			0.00005	**1.3**	0	1	0.43	c	N	**0.43**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1,1,2-Tetrachloroethane	0	0		25			0.0002	**0.07**	0	0	1.9	c	N	**1.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,1-Trichloroethane	0	0		187			0.00017	**1.3**	0	0	8700	n	N	**870**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Biphenylarsenic	0	0		6			0.33	**1.1**	0	0							No	F	Drop - No Detects and No RSL
1,1-Dichloroethane	0	0		187			0.00005	**1.3**	0	0	3.3	c	N	**3.3**	N	N	No	C	Drop - No Detects and All DL < RSL

Exhibit 5A
Revised COPC Screening - Quad 4
(Originally Table 4.5 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
1,1-Dichloroethene	0	0		187			0.00007	**1.3**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichlorobenzene	0	0		25			0.00016	**0.07**	0	0	49	n	N	**4.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,4-Trichlorobenzene	0	0		51			0.00024	**6.8**	0	0	22	c	N	**22**	N	N	No	C	Drop - No Detects and All DL < RSL
1,3-Dichloropropane	0	0		26			0.00006	**0.072**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < RSL
2,2'-Chloroisopropylether	0	0		10			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
2,2'-Oxybis(1-Chloropropane)	0	0		16			0.35	**1.2**	0	0							No	F	Drop - No Detects and No RSL
2,3,4,6-Tetrachlorophenol	0	0		1			6.8	**6.8**	0	0	1800	n	N	**180**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,5-Trichlorophenol	0	0		26			0.399	**6.8**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,6-Trichlorophenol	0	0		26			0.35	**6.8**	0	0	44	c	N	**44**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dichlorophenol	0	0		26			0.35	**6.8**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dimethylphenol	0	0		26			0.35	**6.8**	0	0	1200	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloroethyl vinyl ether	0	0		142			0.05	**1.3**	0	0							No	F	Drop - No Detects and No RSL
2-Chloronaphthalene	0	0		26			0.35	**6.8**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorophenol	0	0		26			0.35	**6.8**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorotoluene	0	0		26			0.00005	**0.072**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Hexanone	0	0		37			0.00085	**0.18**	0	0	210	n	N	**21**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Methylphenol	0	0		26			0.35	**6.8**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		26			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
4-Chloro-3-methylphenol	0	0		26			0.35	**6.8**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Chlorotoluene	0	0		26			0.0001	**0.072**	0	0	5500	n	N	**550**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methyl-2-pentanone	0	0		37			0.00026	**0.18**	0	0	5300	n	N	**530**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	0	0		16			0.35	**1.2**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Nitroaniline	0	0		26			0.399	**6.8**	0	0	24	c	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
Aniline	0	0		7			0.399	**1.2**	0	0	85	c	N	**85**	N	N	No	C	Drop - No Detects and All DL < RSL
Benzoic acid	0	0		7			1.99	**5.98**	0	0	240000	n	N	**24000**	N	N	No	C	Drop - No Detects and All DL < RSL
Benzyl alcohol	0	0		7			0.399	**1.2**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
bis(2-Chloroethoxy) methane	0	0		26			0.35	**6.8**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromobenzene	0	0		26			0.0001	**0.072**	0	0	300	n	N	**30**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromoform	0	0		187			0.00027	**1.3**	0	0	61	c	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
Butylbenzylphthalate	0	0		26			0.35	**6.8**	0	0	260	c	N	**260**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbazole	0	0		19			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
Chloroethane	0	0		179			0.00033	**1.3**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		19			0.005	**0.063**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		168			0.00008	**1.3**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyanide	0	0		7			1.3	**12**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromomethane	0	0		26			0.0002	**0.072**	0	0	25	n	N	**2.5**	N	N	No	C	Drop - No Detects and All DL < RSL
Dichlorodifluoromethane	0	0		167			0.00007	**1.3**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	0	0		26			0.35	**6.8**	0	0	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Dimethylphthalate	0	0		26			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
Di-n-octylphthalate	0	0		26			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
gamma-BHC (Lindane)	0	0		37			0.00008	**0.41**	0	0	0.52	c	N	**0.52**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorocyclopentadiene	0	0		26			0.35	**6.8**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachloroethane	0	0		26			0.35	**6.8**	0	0	35	c	N	**35**	N	N	No	C	Drop - No Detects and All DL < RSL
Molybdenum	0	0		1			2	**2**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
N-Nitrosodiphenylamine/Diphenylamine	0	0		26			0.35	**6.8**	0	0	99	c	N	**99**	N	N	No	C	Drop - No Detects and All DL < RSL
Tellurium	0	0		1			10	**10**	0	0							No	F	Drop - No Detects and No RSL
Tin	0	0		1			6	**6**	0	0	47000	n	N	**4700**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		168			0.00005	**1.3**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of N-flag (Tentatively Identified Compound)																			
Aroclor-unspecified-10	1	1		1	5	5			100	100							No	D	Drop - TIC
Aroclor-unspecified-5	1	1		1	0.9	0.9			100	100							No	D	Drop - TIC
Aroclor-unspecified-6	1	1		1	0.6	0.6			100	100							No	D	Drop - TIC
Aroclor-unspecified-7	1	1		1	1	1			100	100							No	D	Drop - TIC
Aroclor-unspecified-8	1	1		1	10	10			100	100							No	D	Drop - TIC
Aroclor-unspecified-9	1	1		1	30	30			100	100							No	D	Drop - TIC
Dimethylanthracene (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Dimethylphenanthrene (unspecified)	1	1		1	0.5	0.5			100	100							No	D	Drop - TIC
Hexadecanoic Acid	2	2		2	0.1	0.3			100	100							No	D	Drop - TIC
Methylbenzanthracene (unspecified)	1	1		1	0.3	0.3			100	100							No	D	Drop - TIC
Methylpyrene (unspecified)	1	1		1	0.3	0.3			100	100							No	D	Drop - TIC

Exhibit 5A
Revised COPC Screening - Quad 4
(Originally Table 4.5 from Jan 2010 HHRA)

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL (1) (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	24	24		35	27.1	38200	90	3333	66	69							No	E	Drop - Essential Nutrient
Magnesium	25	25		35	37.9	7850	90	1260	71	71							No	E	Drop - Essential Nutrient
Potassium	23	23		35	30	4170	23	3333	63	66							No	E	Drop - Essential Nutrient
Sodium	20	20		35	35	8550	17	1260	57	57							No	E	Drop - Essential Nutrient
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
1,3,5-Trimethylbenzene	27	27		167	0.07	**31.5**	0.00004	**0.13**	14	16	780	n	N	**78**	N	N	YES	Y	Drop - Max Detect and DL < RSL
2-Butanone (MEK)	7	7		37	**0.0024**	0.02	0.0018	**0.72**	14	19	28000	n	N	**2800**	**N**	N	No	G	Drop - Max Detect and DL < RSL
2-Methylnaphthalene	36	36		192	**0.00044**	16.6	0.00039	**6.84**	18	19	310	n	N	**31**	**N**	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDE	4	4		37	**0.00018**	0.094	0.00011	**0.82**	8	11	1.4	c	N	**1.4**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Acenaphthene	18	18		207	**0.00031**	1.02	0.00023	**6.84**	8	9	3400	n	N	**340**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Acetone	24	24		37	**0.0078**	2.9	0.011	**0.72**	54	65	61000	n	N	**6100**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Anthracene	28	28		207	**0.00063**	7.46	0.00047	**6.84**	13	14	17000	n	N	**1700**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Barium	48	48		128	**2.36**	242	42	**142**	36	38	15000	n	N	**1500**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Beryllium	17	17		35	**0.006**	0.09399	0.20999	**3.33**	43	49	160	n	N	**16**	**N**	N	No	G	Drop - Max Detect and DL < RSL
bis(2-Ethylhexyl) phthalate	2	2		26	**2.1**	2.6	0.35	**6.8**	8	8	35	c	N	**35**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Cadmium	14	14		38	**0.00899**	0.164	0.008	**3.33**	32	37	70	n	N	**7**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Carbon disulfide	13	13		37	**0.00009**	0.019	0.00005	**0.18**	30	35	820	n	N	**82**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Copper	28	28		39	**0.18999**	35	1	**16.7**	72	72	3100	n	N	**310**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Dichloromethane (Methylene chloride)	21	21		187	**0.00027**	3.5	0.00016	**1.3**	9	11	11	c	N	**11**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	3	3		26	**0.03**	0.435	0.35	**6.8**	12	12	6100	n	N	**610**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Ethyl benzene	13	13		187	**0.00022**	0.40999	0.00004	**1.3**	7	7	5.4	c	N	**5.4**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Fluoranthene	22	22		207	**0.0011**	3.1	0.00061	**6.84**	10	11	2300	n	N	**230**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Fluorene	12	12		207	**0.0004**	0.81	0.0005	**6.84**	6	6	2300	n	N	**230**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Isopropylbenzene	25	25		167	**0.00016**	105	0.00003	**0.12999**	13	15	2100	n	N	**210**	**N**	N	No	G	Drop - Max Detect and DL < RSL
m&p-Xylene	18	18		167	**0.00055**	2.015	0.00011	**1.3**	8	11	3400	n	N	**340**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Methoxychlor	10	10		37	**0.00048**	1.1	0.00019	**4**	27	27	310	n	N	**31**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Methyl mercury	8	8		8	**0.00013**	0.00143			100	100	7.8	n	N	**0.78**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Nickel	23	23		39	**0.15999**	26.2	2.1	**26.7**	56	59	1500	n	N	**150**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Pyrene	46	46		207	**0.00083**	16	0.00037	**6.84**	20	22	1700	n	N	**170**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Selenium	4	4		38	**0.28**	2	0.25	**8**	11	11	390	n	N	**39**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Silver	9	9		38	**0.004**	0.04699	0.004	**6.67**	21	24	390	n	N	**39**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Toluene	33	33		187	**0.00025**	0.77999	0.005	**1.3**	14	18	5000	n	N	**500**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Strontium	1	1		1	19	**19**			100	100	47000	n	N	**4700**	**N**	N	No	A	Drop - Max Detect and DL < RSL
Xylenes (unspecified)	4	4		20	**0.004**	0.052	0.005	**0.072**	20	20	630	n	N	**63**	**N**	N	No	G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs.
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.

Highlighted Cells Key:
- Frequency Detection < 5%
- Constituent without RSL - Surrogate Chemical Identified
- Change to RSL between April 2009 and November 2010

COPC screening code (from HHBRA):
- A Low record count <10 site wide
- B DLs above adjusted residential RSL
- C Less than 5% detection frequency including DLs above adjusted RSL
- D Parameter with N flag
- E Essential nutrient
- F Less than 5% detection frequency and no RSL
- G Max detect and max DL below adjusted residential RSL
- T Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
- Y Retain as COPC

Exhibit 5B
Screening Refinements for "B" Flagged Parameters - Quad 4

Parameter	CRQL Medium[1] (mg/kg)	Residential RSL [2] (mg/kg)	# DL above CRQL	% DL above CRQL [3]	# DL above RSL	% DL above RSL [4]	# Level 4 data records	# Level 4 data DL below RSL [5]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
1,2-Dibromo-3-chloropropane	0.25	0.0056	0	0	7	28					Drop - <10% DL > CRQL
1,2-Dibromoethane	0.25	0.034	0	0	8	32					Drop - <10% DL > CRQL
2,4-Dinitrotoluene	5	1.6	1	4	1	4					Drop - <10% DL > CRQL
2-Nitroaniline	10	1.8	0	0	5	19					Drop - <10% DL > CRQL
3,3'-Dichlorobenzidine	5	1.1	1	4	2	8					Drop - <10% DL > CRQL
3-Nitroaniline	10	61	0	0	0	0					Drop - <10% DL > CRQL
4,4'-DDT	0.0033	1.7	19	51	1	3					Drop - <5% DL > RSL
4,6-Dinitro-2-methylphenol	10	0.49	1	4	23	100					Drop - <10% DL > CRQL
Aldrin	0.0017	0.029	20	54	2	5					Drop - <5% DL > RSL
alpha-BHC	0.0017	0.077	21	57	1	3					Drop - <5% DL > RSL
Aroclor-1016	0.033	0.39	333	91	259	71	110	105			Drop - >10 Level IV DLs < RSL
Aroclor-1221	0.033	0.14	333	91	275	76	110	89			Drop - >10 Level IV DLs < RSL
Aroclor-1232	0.033	0.14	333	91	270	74	110	94			Drop - >10 Level IV DLs < RSL
Aroclor-1242	0.033	0.22	332	91	265	73	110	99			Drop - >10 Level IV DLs < RSL
Aroclor-1248	0.033	0.22	332	91	264	73	110	100			Drop - >10 Level IV DLs < RSL
Aroclor-1262	0.033	0.14	2	12	1	6	17	16			Drop - >10 Level IV DLs < RSL
Benzidine	5	0.0005	1	14	7	100	7	7	38	0	Drop - All ND in Pre-Removal Samples
Benzo(b/k)fluoranthene	5	0.15	1	10	9	90					Drop - <10% DL > CRQL
beta-BHC	0.0017	0.27	22	59	1	3					Drop - <5% DL > RSL
bis(2-Chloroethyl) ether	5	0.21	1	3.8	26	100					Drop - <10% DL > CRQL
Chlordane	0.0017	1.6	1	100	1	100	1	0	8	0	Drop - All ND in Pre-Removal Samples
Delta-BHC	0.0017	0.077	21	57	1	3	37	36			Drop - >10 Level IV DLs < RSL
Dieldrin	0.0033	0.03	22	59	5	14	37	31			Drop - >10 Level IV DLs < RSL
Endrin	0.0033	1.8	21	57	1	3					Drop - <5% DL > RSL
Endrin Ketone	0.0033	1.8	23	62	1	3					Drop - <5% DL > RSL
Heptachlor	0.0017	0.11	23	62	1	3					Drop - <5% DL > RSL
Heptachlor epoxide	0.0017	0.053	22	59	1	3					Drop - <5% DL > RSL
Hexachlorobenzene	5	0.3	1	4	24	92					Drop - <10% DL > CRQL
Nitrobenzene	5	4.8	1	4	1	4					Drop - <10% DL > CRQL
N-Nitrosodimethylamine		0.0023			7	100			75	0	Drop - All ND in Pre-Removal Samples
N-Nitroso-di-n-propylamine	5	0.069	1	4	26	100					Drop - <10% DL > CRQL
Pentachlorophenol	10	0.89	1	4	23	88					Drop - <10% DL > CRQL
Thallium	2.5	0.51	7	20	18	51	35	0			Drop - not used at site
Toxaphene	0.17	0.44	25	68	13	35	37	24			Drop - >10 Level IV DLs < RSL
Vinyl chloride	0.25	0.06	3	2	19	11					Drop - <10% DL > CRQL

Notes:

(1) Values are the current EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQI

(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.

(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQI

(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSL

(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL, or that were not detected in the pre-removal sampl