APPENDIX F

Sediment Figures

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Glenn Springs Holdings, Inc.
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REMEDIAL INVESTIGATION REPORT APPENDIX F – SEDIMENT FIGURES

Newark Bay Study Area
Newark, New Jersey

May 2022

CONTENTS

Figure F-1 Sediment Correlation – Metals and Iron
Figure F-2 Sediment Correlation – Metals and Iron
Figure F-3 Sediment Correlation – Metals and Iron
Figure F-4 Sediment Correlation – Metals and Fines (Silt & Clay)
Figure F-5 Sediment Correlation – Metals and Fines (Silt & Clay)
Figure F-6 Sediment Correlation – Metals and Fines (Silt & Clay)
Figure F-7 Surface Sediment (0 - 0.5 Feet) Results - 2,3,7,8-TCDD
Figure F-8 Surface Sediment (0 - 0.5 Feet) Results - Total PCBs (Sum of 9 Aroclors)
Figure F-9 Surface Sediment (0 - 0.5 Feet) Results - Total PCB Congeners (209)
Figure F-10 Surface Sediment (0 - 0.5 Feet) Results - Alpha-BHC
Figure F-11 Surface Sediment (0 - 0.5 Feet) Results - Beta-BHC
Figure F-12 Surface Sediment (0 - 0.5 Feet) Results - Cis-Nonachlor
Figure F-13 Surface Sediment (0 - 0.5 Feet) Results - Dieldrin
Figure F-14 Surface Sediment (0 - 0.5 Feet) Results - Heptachlor Epoxide
Figure F-15 Surface Sediment (0 - 0.5 Feet) Results - Hexachlorobenzene
Figure F-16 Surface Sediment (0 - 0.5 Feet) Results - Total Alpha + Gamma Chlordane
Figure F-17 Surface Sediment (0 - 0.5 Feet) Results - Total DDx (2,4 & 4,4)
Figure F-18 Surface Sediment (0 - 0.5 Feet) Results - Total DDx (4,4)
Figure F-19 Surface Sediment (0 - 0.5 Feet) Results - Total Alkylated PAHs
Figure F-20 Surface Sediment (0 - 0.5 Feet) Results - Total HMW PAHs
Figure F-21 Surface Sediment (0 - 0.5 Feet) Results - Total LMW PAHs
Figure F-22 Surface Sediment (0 - 0.5 Feet) Results - Total PAHs
Figure F-23 Surface Sediment (0 - 0.5 Feet) Results - Bis(2-ethylhexyl)phthalate
Figure F-24 Surface Sediment (0 - 0.5 Feet) Results - TPH
Figure F-25 Surface Sediment (0 - 0.5 Feet) Results - Arsenic
Figure F-26 Surface Sediment (0 - 0.5 Feet) Results - Cadmium
Figure F-27 Surface Sediment (0 - 0.5 Feet) Results - Chromium
Figure F-28 Surface Sediment (0 - 0.5 Feet) Results - Copper
Figure F-29 Surface Sediment (0 - 0.5 Feet) Results - Lead

Figure F-30 Surface Sediment (0 - 0.5 Feet) Results - Mercury
Figure F-31 Surface Sediment (0 - 0.5 Feet) Results - Methylmercury
Figure F-32 Surface Sediment (0 - 0.5 Feet) Results - Nickel
Figure F-33 Surface Sediment (0 - 0.5 Feet) Results - Selenium
Figure F-34 Surface Sediment (0 - 0.5 Feet) Results - Silver
Figure F-35 Surface Sediment (0 - 0.5 Feet) Results - Zinc
Figure F-36 Sediment by Geomorphic Area - 2,3,7,8-TCDD
Figure F-37 Sediment by Geomorphic Area - Total PCBs (9 Aroclors)
Figure F-38 Sediment by Geomorphic Area - Total PCB (209 Congeners)
Figure F-39 Sediment by Geomorphic Area - Total DDx (2,4 & 4,4)
Figure F-40 Sediment by Geomorphic Area - Total DDx (4,4)
Figure F-41 Sediment by Geomorphic Area - Total Alpha + Gamma Chlordane
Figure F-42 Sediment by Geomorphic Area - Alpha-BHC
Figure F-43 Sediment by Geomorphic Area - Beta-BHC
Figure F-44 Sediment by Geomorphic Area - Cis-Nonachlor
Figure F-45 Sediment by Geomorphic Area - Dieldrin
Figure F-46 Sediment by Geomorphic Area - Hexachlorobenzene
Figure F-47 Sediment by Geomorphic Area - Heptachlor Epoxide
Figure F-48 Sediment by Geomorphic Area - Total PAHs
Figure F-49 Sediment by Geomorphic Area - Total HMW PAHs
Figure F-50 Sediment by Geomorphic Area - Total LMH PAHs
Figure F-51 Sediment by Geomorphic Area - Total Alkylated PAHs
Figure F-52 Sediment by Geomorphic Area - Bis(2-ethylhexyl)phthalate
Figure F-53 Sediment by Geomorphic Area - TPH
Figure F-54 Sediment by Geomorphic Area - Arsenic
Figure F-55 Sediment by Geomorphic Area - Cadmium
Figure F-56 Sediment by Geomorphic Area - Chromium
Figure F-57 Sediment by Geomorphic Area - Copper
Figure F-58 Sediment by Geomorphic Area - Lead
Figure F-59 Sediment by Geomorphic Area - Mercury
Figure F-60 Sediment by Geomorphic Area - Methyl Mercury

Figure F-61 Sediment by Geomorphic Area - Nickel
Figure F-62 Sediment by Geomorphic Area - Selenium
Figure F-63 Sediment by Geomorphic Area - Silver
Figure F-64 Sediment by Geomorphic Area – Zinc
Figure F-65 Sediment by Geomorphic Area - 2,3,7,8-TCDD-Normalized
Figure F-66 Sediment by Geomorphic Area - Total PCBs (9 Aroclors)-Normalized
Figure F-67 Sediment by Geomorphic Area - Total PCB (209 Congeners)-Normalized
Figure F-68 Sediment by Geomorphic Area - Total DDx (2,4 & 4,4)-Normalized
Figure F-69 Sediment by Geomorphic Area - Total DDx (4,4)-Normalized
Figure F-70 Sediment by Geomorphic Area - Total Alpha + Gamma Chlordane-Normalized
Figure F-71 Sediment by Geomorphic Area - Alpha-BHC-Normalized
Figure F-72 Sediment by Geomorphic Area - Beta-BHC-Normalized
Figure F-73 Sediment by Geomorphic Area - Cis-Nonachlor-Normalized
Figure F-74 Sediment by Geomorphic Area - Dieldrin-Normalized
Figure F-75 Sediment by Geomorphic Area - Hexachlorobenzene-Normalized
Figure F-76 Sediment by Geomorphic Area - Heptachlor Epoxide-Normalized
Figure F-77 Sediment by Geomorphic Area - Total PAHs-Normalized
Figure F-78 Sediment by Geomorphic Area - Total HMW PAHs-Normalized
Figure F-79 Sediment by Geomorphic Area - Total LMW PAHs-Normalized
Figure F-80 Sediment by Geomorphic Area - Total Alkylated PAHs-Normalized
Figure F-81 Sediment by Geomorphic Area - Bis(2-ethylhexyl)phthalate-Normalized
Figure F-82 Sediment by Geomorphic Area – TPH-Normalized
Figure F-83 Sediment by Geomorphic Area - Arsenic-Normalized
Figure F-84 Sediment by Geomorphic Area - Cadmium-Normalized
Figure F-85 Sediment by Geomorphic Area - Chromium-Normalized
Figure F-86 Sediment by Geomorphic Area - Copper-Normalized
Figure F-87 Sediment by Geomorphic Area - Lead-Normalized
Figure F-88 Sediment by Geomorphic Area - Mercury-Normalized
Figure F-89 Sediment by Geomorphic Area - Methyl Mercury-Normalized
Figure F-90 Sediment by Geomorphic Area - Nickel-Normalized
Figure F-91 Sediment by Geomorphic Area - Selenium-Normalized

Figure F-92 Sediment by Geomorphic Area - Silver-Normalized
Figure F-93 Sediment by Geomorphic Area - Zinc-Normalized
Figure F-94 Sediment by USEPA Subunit - 2,3,7,8-TCDD
Figure F-95 Sediment by USEPA Subunit - Total PCBs (9 Aroclors)
Figure F-96 Sediment by USEPA Subunit - Total PCB (209 Congeners)
Figure F-97 Sediment by USEPA Subunit - Total DDx (2,4 & 4,4)
Figure F-98 Sediment by USEPA Subunit - Total DDx (4,4)
Figure F-99 Sediment by USEPA Subunit - Total Alpha + Gamma Chlordane
Figure F-100 Sediment by USEPA Subunit - Alpha-BHC
Figure F-101 Sediment by USEPA Subunit - Beta-BHC
Figure F-102 Sediment by USEPA Subunit - Cis-Nonachlor
Figure F-103 Sediment by USEPA Subunit - Dieldrin
Figure F-104 Sediment by USEPA Subunit – Hexachlorobenzene
Figure F-105 Sediment by USEPA Subunit - Heptachlor Epoxide
Figure F-106 Sediment by USEPA Subunit - Total PAHs
Figure F-107 Sediment by USEPA Subunit - Total HMW PAHs
Figure F-108 Sediment by USEPA Subunit - Total LMW PAHs
Figure F-109 Sediment by USEPA Subunit - Total Alkylated PAHs
Figure F-110 Sediment by USEPA Subunit - Bis(2-ethylhexyl)phthalate
Figure F-111 Sediment by USEPA Subunit - TPH
Figure F-112 Sediment by USEPA Subunit - Arsenic
Figure F-113 Sediment by USEPA Subunit - Cadmium
Figure F-114 Sediment by USEPA Subunit - Chromium
Figure F-115 Sediment by USEPA Subunit - Copper
Figure F-116 Sediment by USEPA Subunit - Lead
Figure F-117 Sediment by USEPA Subunit - Mercury
Figure F-118 Sediment by USEPA Subunit - Methyl Mercury
Figure F-119 Sediment by USEPA Subunit - Nickel
Figure F-120 Sediment by USEPA Subunit - Selenium
Figure F-121 Sediment by USEPA Subunit - Silver
Figure F-122 Sediment by USEPA Subunit - Zinc

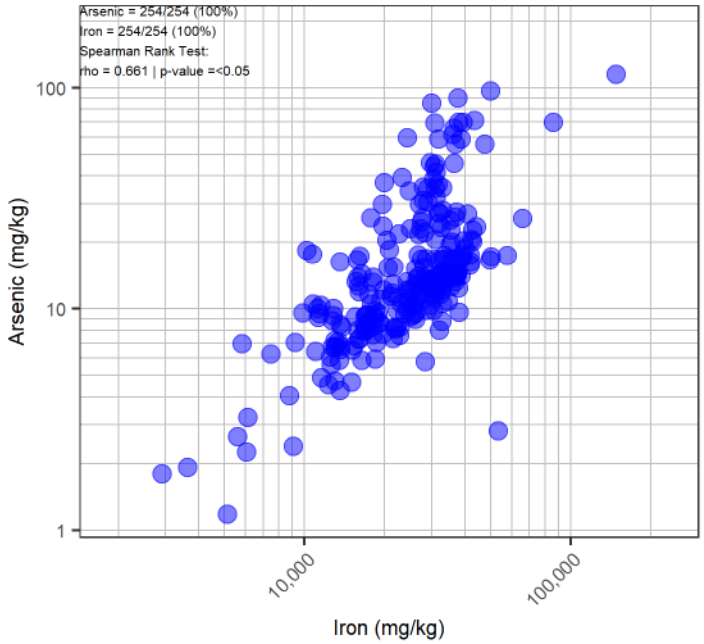
Figure F-123 Sediment by USEPA Subunit - 2,3,7,8-TCDD-Normalized
Figure F-124 Sediment by USEPA Subunit - Total PCBs (9 Aroclors)-Normalized
Figure F-125 Sediment by USEPA Subunit - Total PCB (209 Congeners)-Normalized
Figure F-126 Sediment by USEPA Subunit - Total DDx (2,4 & 4,4)-Normalized
Figure F-127 Sediment by USEPA Subunit - Total DDx (4,4)-Normalized
Figure F-128 Sediment by USEPA Subunit - Total Alpha + Gamma Chlordane-Normalized
Figure F-129 Sediment by USEPA Subunit - Alpha-BHC-Normalized
Figure F-130 Sediment by USEPA Subunit - Beta-BHC-Normalized
Figure F-131 Sediment by USEPA Subunit - Cis-Nonachlor-Normalized
Figure F-132 Sediment by USEPA Subunit - Dieldrin-Normalized
Figure F-133 Sediment by USEPA Subunit - Hexachlorobenzene-Normalized
Figure F-134 Sediment by USEPA Subunit - Heptachlor Epoxide-Normalized
Figure F-135 Sediment by USEPA Subunit - Total PAHs-Normalized
Figure F-136 Sediment by USEPA Subunit - Total HMW PAHs-Normalized
Figure F-137 Sediment by USEPA Subunit - Total LMW PAHs-Normalized
Figure F-138 Sediment by USEPA Subunit - Total Alkylated PAHs-Normalized
Figure F-139 Sediment by USEPA Subunit - Bis(2-ethylhexyl)phthalate-Normalized
Figure F-140 Sediment by USEPA Subunit - TPH-Normalized
Figure F-141 Sediment by USEPA Subunit - Arsenic-Normalized
Figure F-142 Sediment by USEPA Subunit - Cadmium-Normalized
Figure F-143 Sediment by USEPA Subunit - Chromium-Normalized
Figure F-144 Sediment by USEPA Subunit - Copper-Normalized
Figure F-145 Sediment by USEPA Subunit - Lead-Normalized
Figure F-146 Sediment by USEPA Subunit - Mercury-Normalized
Figure F-147 Sediment by USEPA Subunit - Methyl Mercury-Normalized
Figure F-148 Sediment by USEPA Subunit - Nickel-Normalized
Figure F-149 Sediment by USEPA Subunit - Selenium-Normalized
Figure F-150 Sediment by USEPA Subunit - Silver-Normalized
Figure F-151 Sediment by USEPA Subunit - Zinc-Normalized
Figure F-152 Sediment Results by Deposition Area - 2,3,7,8-TCDD
Figure F-153 Sediment Results by Deposition Area - Total PCBs (9 Aroclors)

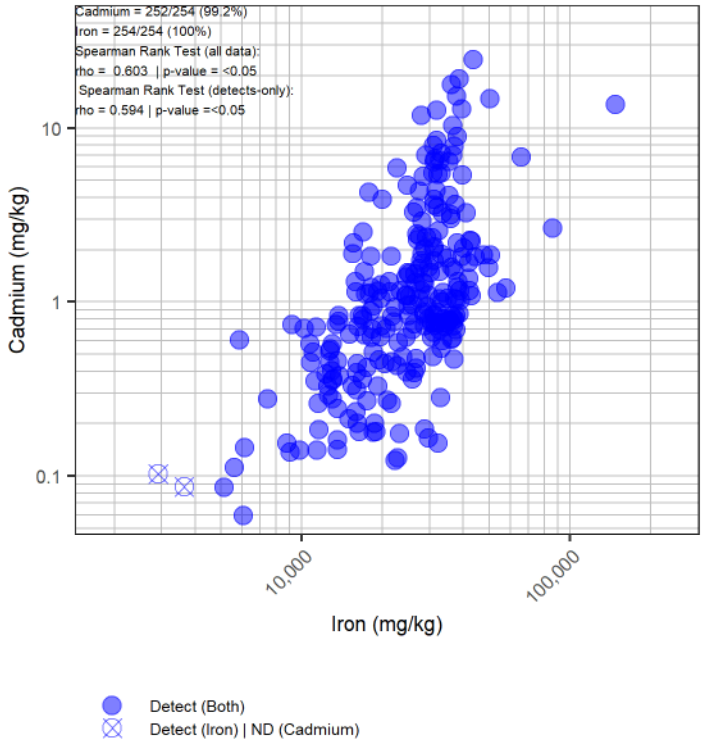
Figure F-154 Sediment Results by Deposition Area - Total PCB (209 Congeners)
Figure F-155 Sediment Results by Deposition Area - Total DDx (2,4 & 4,4)
Figure F-156 Sediment Results by Deposition Area - Total DDx (4,4)
Figure F-157 Sediment Results by Deposition Area - Total Alpha + Gamma Chlordane
Figure F-158 Sediment Results by Deposition Area - Alpha-BHC
Figure F-159 Sediment Results by Deposition Area - Beta-BHC
Figure F-160 Sediment Results by Deposition Area - Cis-Nonachlor
Figure F-161 Sediment Results by Deposition Area - Dieldrin
Figure F-162 Sediment Results by Deposition Area - Hexachlorobenzene
Figure F-163 Sediment Results by Deposition Area – Heptachlor Epoxide
Figure F-164 Sediment Results by Deposition Area - Total PAHs
Figure F-165 Sediment Results by Deposition Area - Total HMW PAHs
Figure F-166 Sediment Results by Deposition Area - Total LMW PAHs
Figure F-167 Sediment Results by Deposition Area - Total Alkylated PAHs
Figure F-168 Sediment Results by Deposition Area - Bis(2-ethylhexyl)phthalate
Figure F-169 Sediment Results by Deposition Area - TPH
Figure F-170 Sediment Results by Deposition Area - Arsenic
Figure F-171 Sediment Results by Deposition Area - Cadmium
Figure F-172 Sediment Results by Deposition Area - Chromium
Figure F-173 Sediment Results by Deposition Area - Copper
Figure F-174 Sediment Results by Deposition Area - Lead
Figure F-175 Sediment Results by Deposition Area - Mercury
Figure F-176 Sediment Results by Deposition Area - Methyl Mercury
Figure F-177 Sediment Results by Deposition Area - Nickel
Figure F-178 Sediment Results by Deposition Area - Selenium
Figure F-179 Sediment Results by Deposition Area - Silver
Figure F-180 Sediment Results by Deposition Area - Zinc
Figure F-181 Sediment Results by Deposition Area - 2,3,7,8-TCDD-Normalized
Figure F-182 Sediment Results by Deposition Area - Total PCBs (9 Aroclors)-Normalized
Figure F-183 Sediment Results by Deposition Area - Total PCB (209 Congeners)-Normalized
Figure F-184 Sediment Results by Deposition Area - Total DDx (2,4 & 4,4)-Normalized

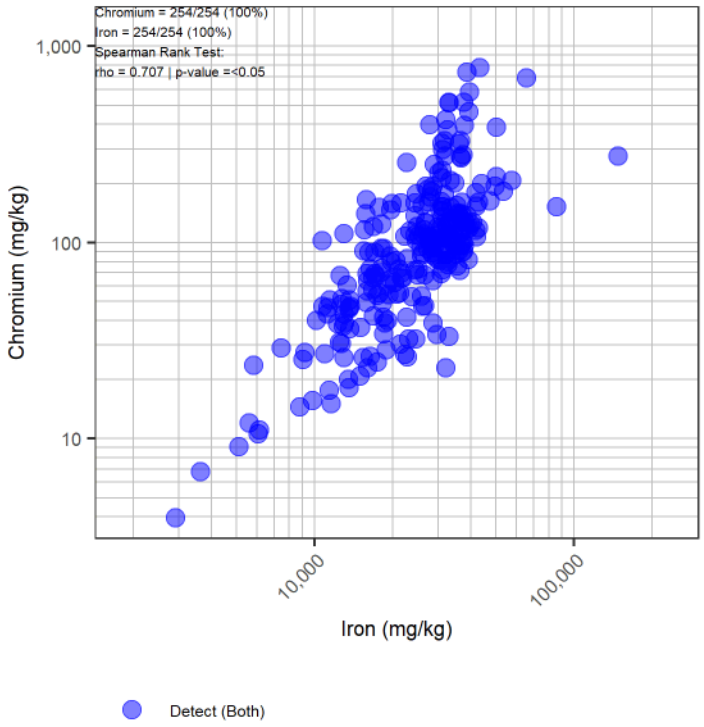
Figure F-185 Sediment Results by Deposition Area - Total DDx (4,4)-Normalized
Figure F-186 Sediment Results by Deposition Area - Total Alpha + Gamma Chlordane-Normalized
Figure F-187 Sediment Results by Deposition Area - Alpha-BHC-Normalized
Figure F-188 Sediment Results by Deposition Area - Beta-BHC-Normalized
Figure F-189 Sediment Results by Deposition Area - Cis-Nonachlor-Normalized
Figure F-190 Sediment Results by Deposition Area - Dieldrin-Normalized
Figure F-191 Sediment Results by Deposition Area - Hexachlorobenzene-Normalized
Figure F-192 Sediment Results by Deposition Area - Heptachlor Epoxide-Normalized
Figure F-193 Sediment Results by Deposition Area - Total PAHs-Normalized
Figure F-194 Sediment Results by Deposition Area - Total HMW PAHs-Normalized
Figure F-195 Sediment Results by Deposition Area - Total LMW PAHs-Normalized
Figure F-196 Sediment Results by Deposition Area - Total Alkylated PAHs - Normalized
Figure F-197 Sediment Results by Deposition Area - Bis(2-ethylhexyl)phthalate-Normalized
Figure F-198 Sediment Results by Deposition Area - TPH-Normalized
Figure F-199 Sediment Results by Deposition Area - Arsenic-Normalized
Figure F-200 Sediment Results by Deposition Area - Cadmium-Normalized
Figure F-201 Sediment Results by Deposition Area - Chromium-Normalized
Figure F-202 Sediment Results by Deposition Area - Copper-Normalized
Figure F-203 Sediment Results Deposition Area - Lead-Normalized
Figure F-204 Sediment Results by Deposition Area - Mercury-Normalized
Figure F-205 Sediment Results by Deposition Area - Methyl Mercury-Normalized
Figure F-206 Sediment Results by Deposition Area - Nickel-Normalized
Figure F-207 Sediment Results by Deposition Area - Selenium-Normalized
Figure F-208 Sediment Results by Deposition Area - Silver-Normalized
Figure F-209 Sediment Results by Deposition Area - Zinc-Normalized
Figure F-210 Sediment Results by Short-Term Deposition Area - 2,3,7,8-TCDD
Figure F-211 Sediment Results by Short-Term Deposition Area - Total PCBs (9 Aroclors)
Figure F-212 Sediment Results by Short-Term Deposition Area - Total PCB (209 Congeners)
Figure F-213 Sediment Results by Short-Term Deposition Area - Total DDx (2,4 & 4,4)
Figure F-214 Sediment Results by Short-Term Deposition Area - Total DDx (4,4)

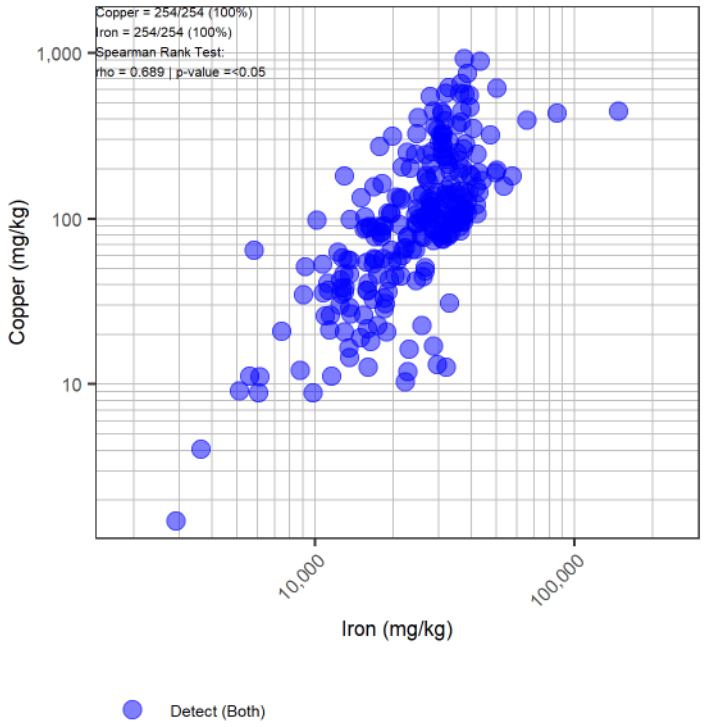
Figure F-215	Sediment Results by Short-Term Deposition Area - Total Alpha + Gamma Chlordane
Figure F-216	Sediment Results by Short-Term Deposition Area - Alpha-BHC
Figure F-217	Sediment Results by Short-Term Deposition Area - Beta-BHC
Figure F-218	Sediment Results by Short-Term Deposition Area - Dieldrin
Figure F-219	Sediment Results by Short-Term Deposition Area - Hexachlorobenzene
Figure F-220	Sediment Results by Short-Term Deposition Area - Heptachlor Epoxide
Figure F-221	Sediment Results by Short-Term Deposition Area - Total PAHs
Figure F-222	Sediment Results by Short-Term Deposition Area - Total HMW PAHs
Figure F-223	Sediment Results by Short-Term Deposition Area - Total LMW PAHs
Figure F-224	Sediment Results by Short-Term Deposition Area - Bis(2-ethylhexyl)phthalate
Figure F-225	Sediment Results by Short-Term Deposition Area - TPH
Figure F-226	Sediment Results by Short-Term Deposition Area - Arsenic
Figure F-227	Sediment Results by Short-Term Deposition Area - Cadmium
Figure F-228	Sediment Results by Short-Term Deposition Area - Chromium
Figure F-229	Sediment Results by Short-Term Deposition Area - Copper
Figure F-230	Sediment Results by Short-Term Deposition Area - Lead
Figure F-231	Sediment Results by Short-Term Deposition Area - Mercury
Figure F-232	Sediment Results by Short-Term Deposition Area - Nickel
Figure F-233	Sediment Results by Short-Term Deposition Area - Selenium
Figure F-234	Sediment Results by Short-Term Deposition Area - Silver
Figure F-235	Sediment Results by Short-Term Deposition Area - Zinc
Figure F-236	Sediment Results by Short-Term Deposition Area - 2,3,7,8-TCDD-Normalized
Figure F-237	Sediment Results by Short-Term Deposition Area - Total PCBs (9 Aroclors)-Normalized
Figure F-238	Sediment Results by Short-Term Deposition Area - Total PCB (209 Congeners)-Normalized
Figure F-239	Sediment Results by Short-Term Deposition Area - Total DDx (2,4 & 4,4)-Normalized
Figure F-240	Sediment Results by Short-Term Deposition Area - Total DDx (4,4)-Normalized

Figure F-241	Sediment Results by Short-Term Deposition Area - Total Alpha + Gamma Chlordane-Normalized
Figure F-242	Sediment Results by Short-Term Deposition Area - Alpha-BHC-Normalized
Figure F-243	Sediment Results by Short-Term Deposition Area - Beta-BHC-Normalized
Figure F-244	Sediment Results by Short-Term Deposition Area - Dieldrin-Normalized
Figure F-245	Sediment Results by Short-Term Deposition Area - Hexachlorobenzene-Normalized
Figure F-246	Sediment Results by Short-Term Deposition Area - Heptachlor Epoxide-Normalized
Figure F-247	Sediment Results by Short-Term Deposition Area - Total PAHs-Normalized
Figure F-248	Sediment Results by Short-Term Deposition Area - Total HMW PAHs-Normalized
Figure F-249	Sediment Results by Short-Term Deposition Area - Total LMW PAHs-Normalized
Figure F-250	Sediment Results by Short-Term Deposition Area - Bis(2-ethylhexyl)phthalate-Normalized
Figure F-251	Sediment Results by Short-Term Deposition Area - TPH-Normalized
Figure F-252	Sediment Results by Short-Term Deposition Area - Arsenic-Normalized
Figure F-253	Sediment Results by Short-Term Deposition Area - Cadmium-Normalized
Figure F-254	Sediment Results by Short-Term Deposition Area - Chromium-Normalized
Figure F-255	Sediment Results by Short-Term Deposition Area - Copper-Normalized
Figure F-256	Sediment Results by Short-Term Deposition Area - Lead-Normalized
Figure F-257	Sediment Results by Short-Term Deposition Area - Mercury-Normalized
Figure F-258	Sediment Results by Short-Term Deposition Area - Nickel-Normalized
Figure F-259	Sediment Results by Short-Term Deposition Area - Selenium-Normalized
Figure F-260	Sediment Results by Short-Term Deposition Area - Silver-Normalized
Figure F-261	Sediment Results by Short-Term Deposition Area - Zinc-Normalized









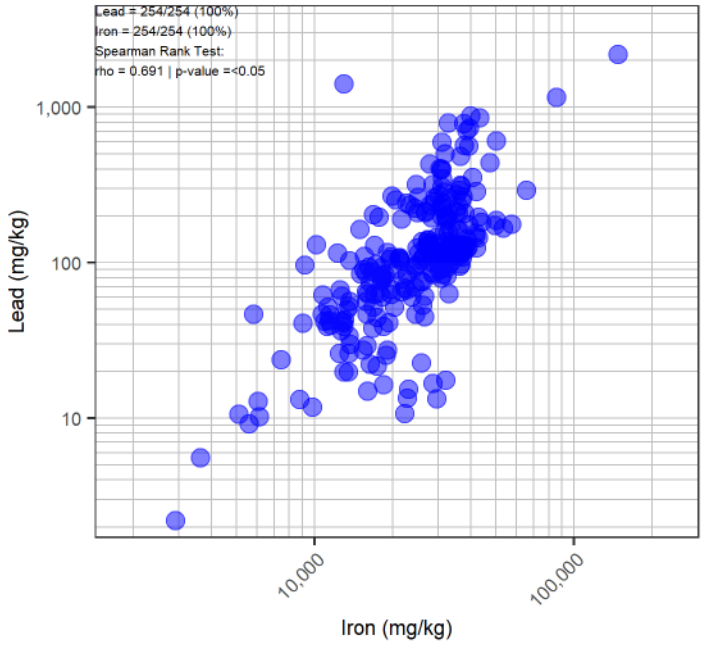
Notes:
1. For correlation analysis, non-detects included at 1/2 the quantitation limit.
2. Non-detects plotted at the quantitation limit.
3. Includes Phase III surface sediment data collected from 2014 to 2016 (including the SQT and crab/clam sediment).

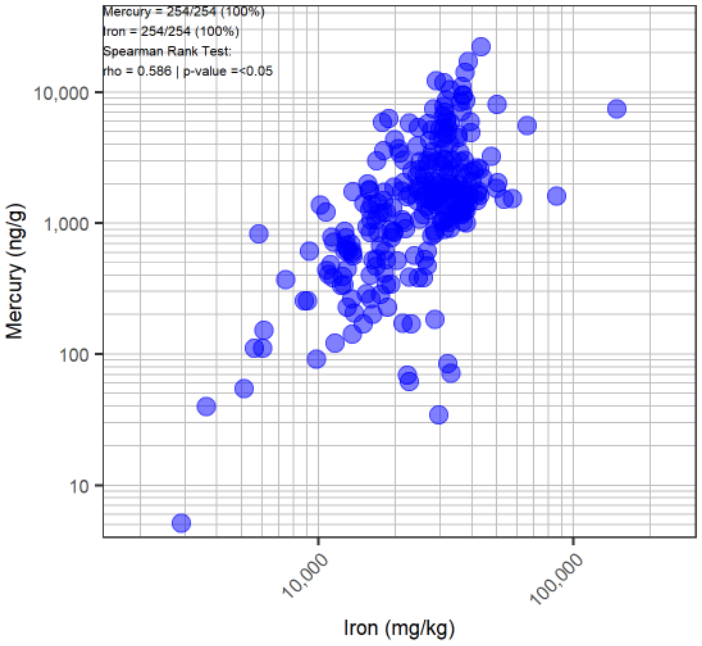
DIAMOND ALKALI SUPERFUND SITE
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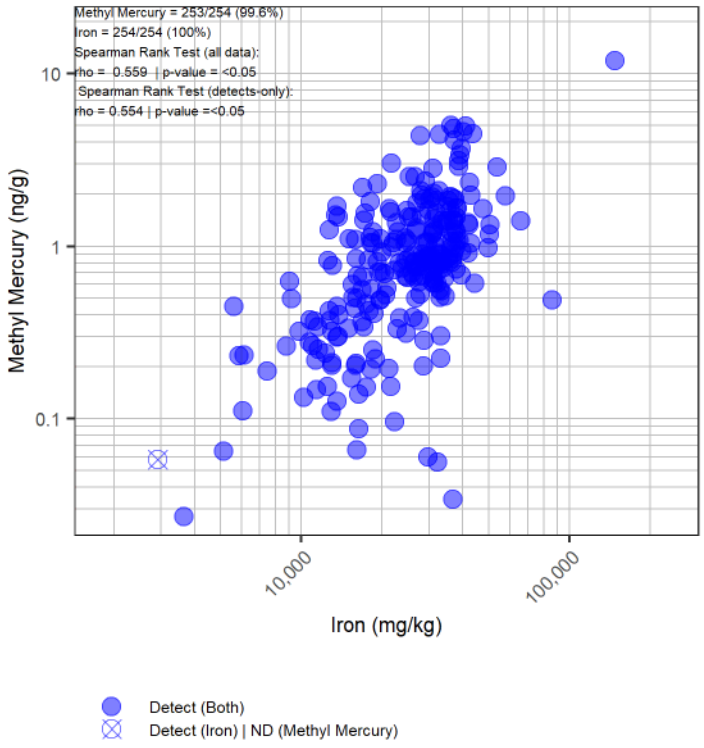
SEDIMENT CORRELATION - METALS AND IRON

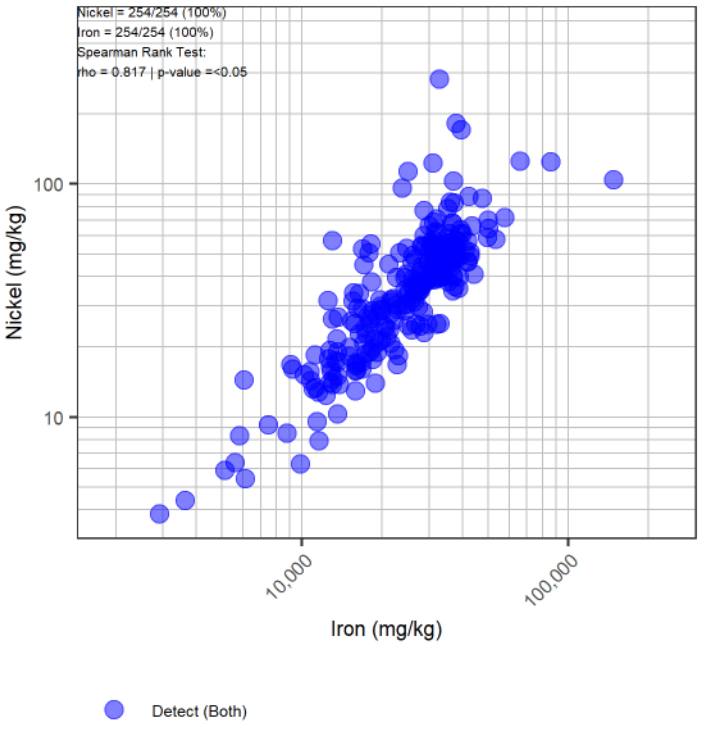
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FIGURE
F-1









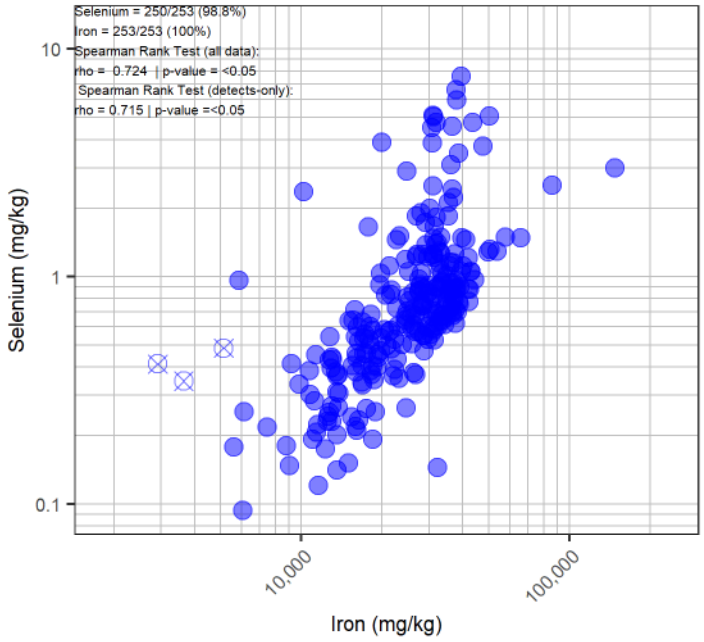
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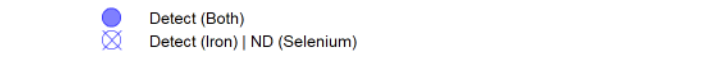
DIAMOND ALKALI SUPERFUND SITE
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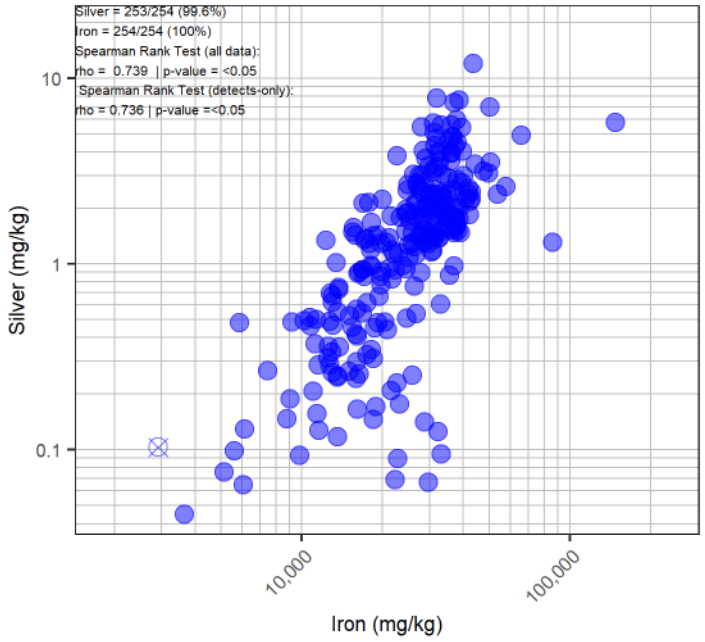
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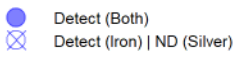
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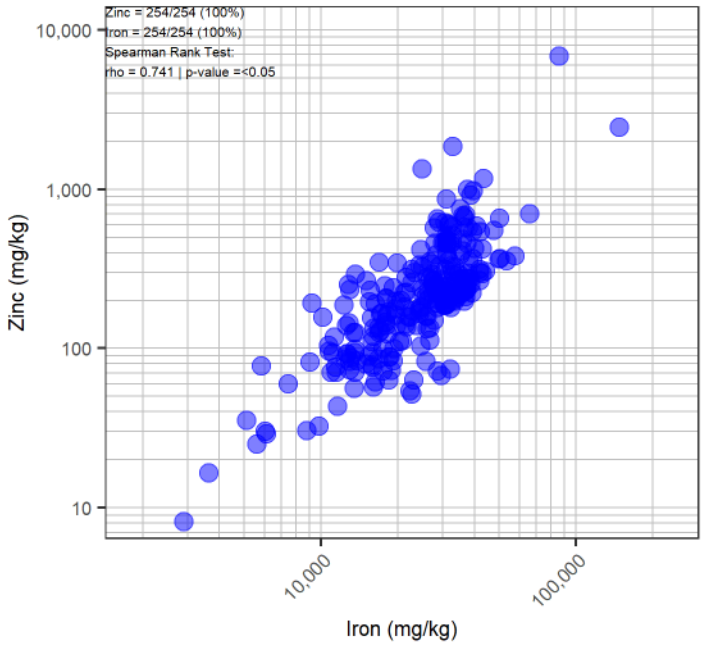
FIGURE
F-2

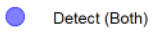












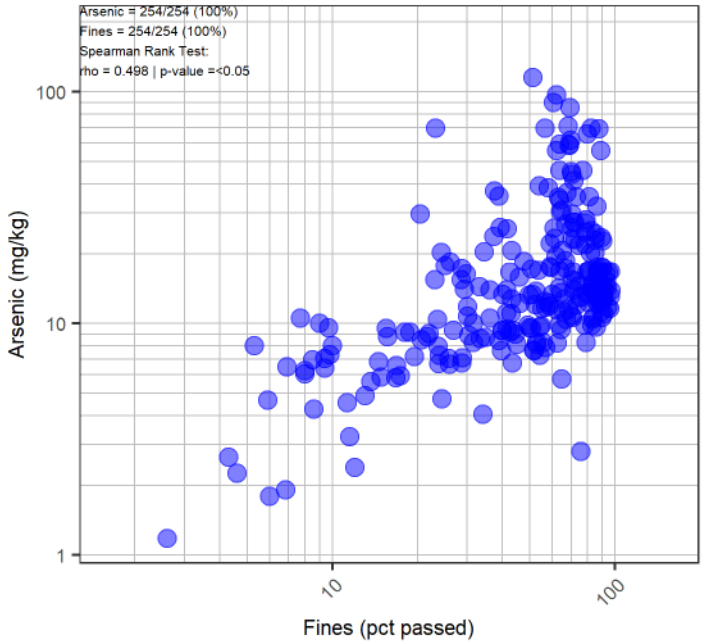
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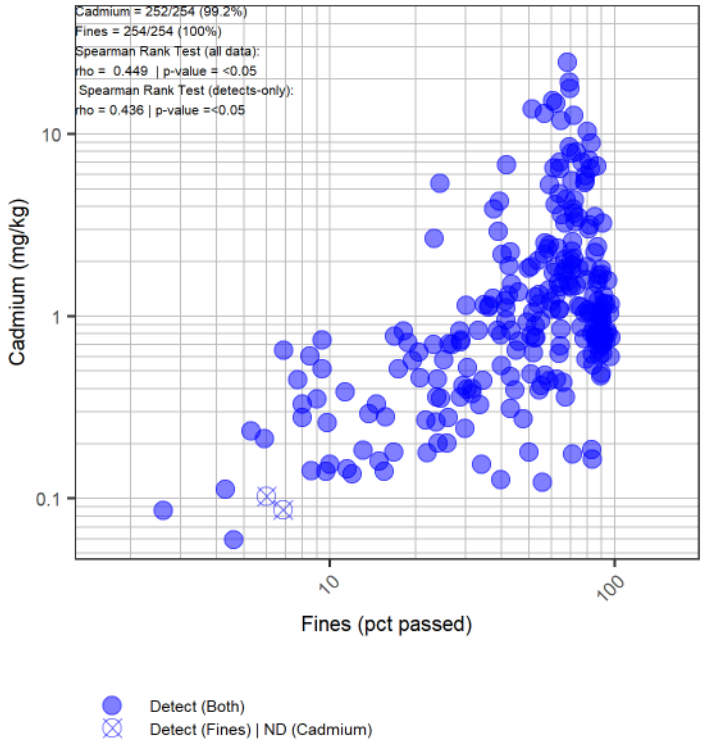
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NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

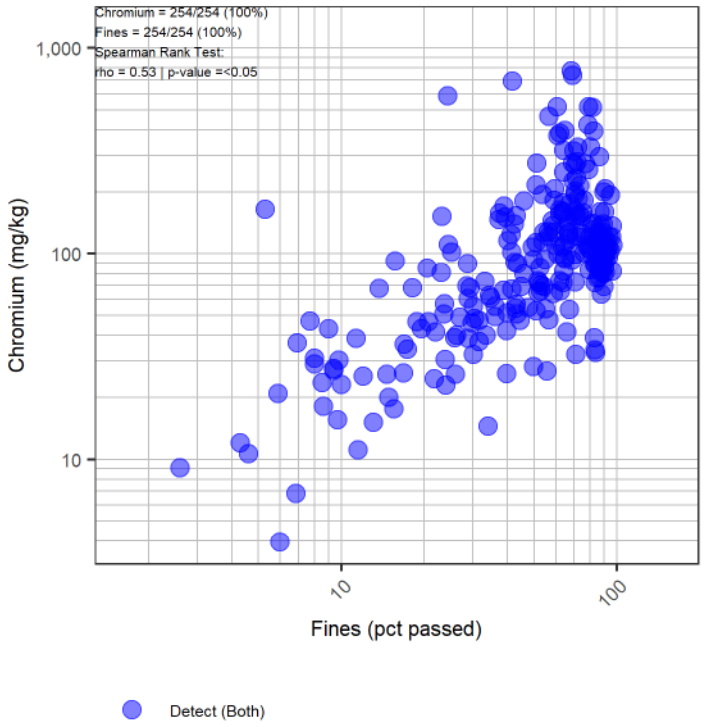
SEDIMENT CORRELATION - METALS AND IRON

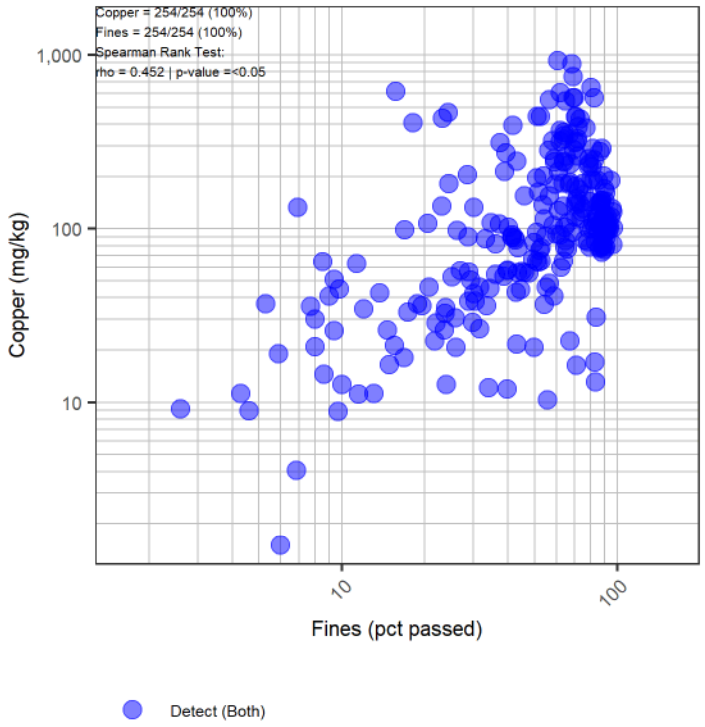
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-3









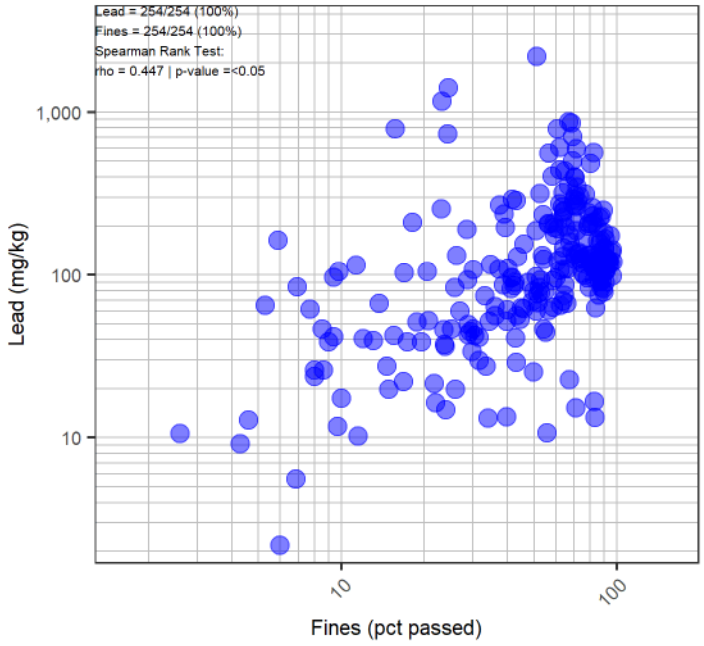
Notes:
1. For correlation analysis, non-detects included at 1/2 the quantitation limit.
2. Non-detects plotted at the quantitation limit.
3. Includes Phase III surface sediment data collected from 2014 to 2016 (including the SQT and crab/clam sediment).

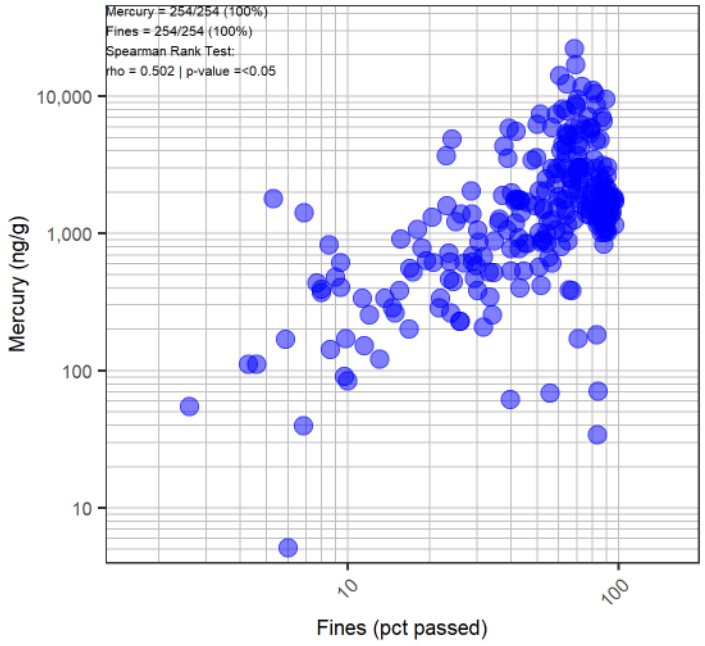
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

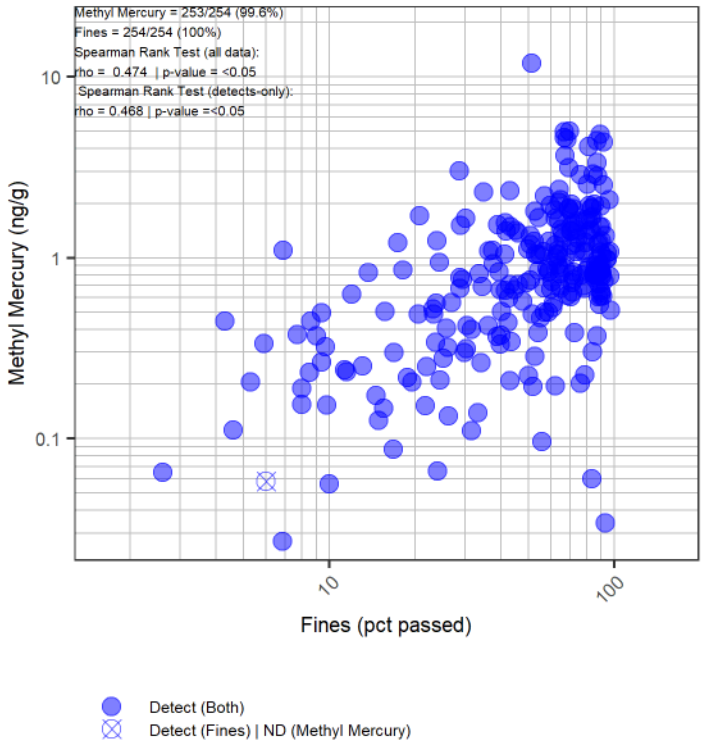
SEDIMENT CORRELATION - METALS AND FINES (SILT&CLAY)

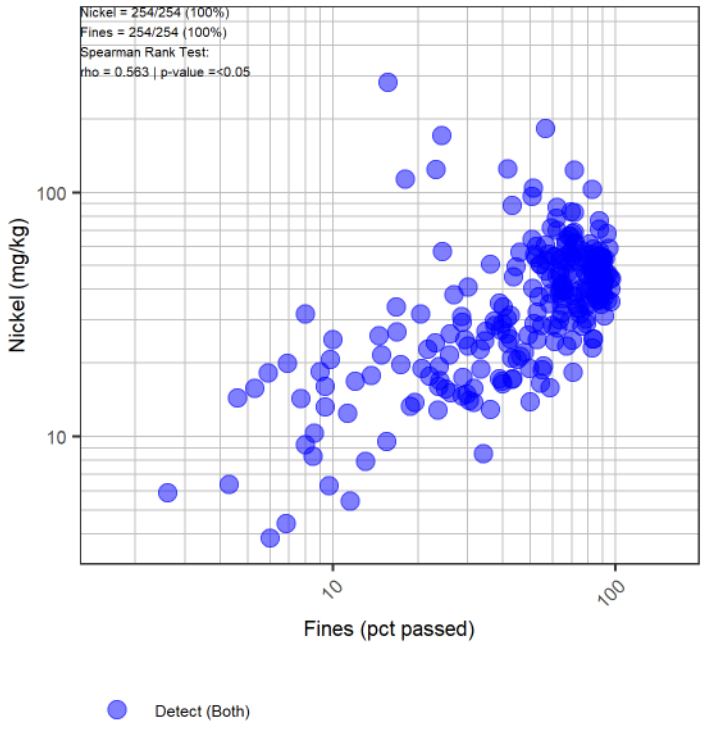
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-4









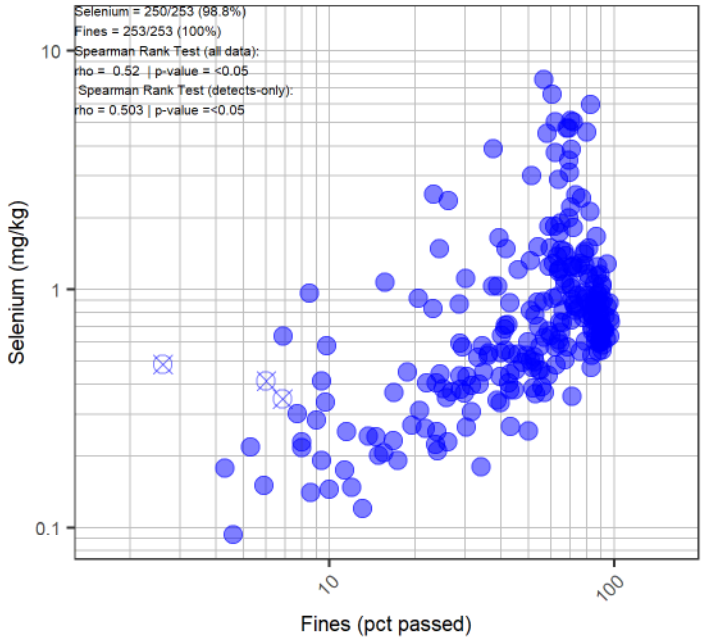
Notes:
1. For correlation analysis, non-detects included at 1/2 the quantitation limit.
2. Non-detects plotted at the quantitation limit.
3. Includes Phase III surface sediment data collected from 2014 to 2016 (including the SQT and crab/clam sediment).

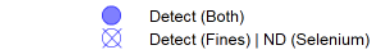
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

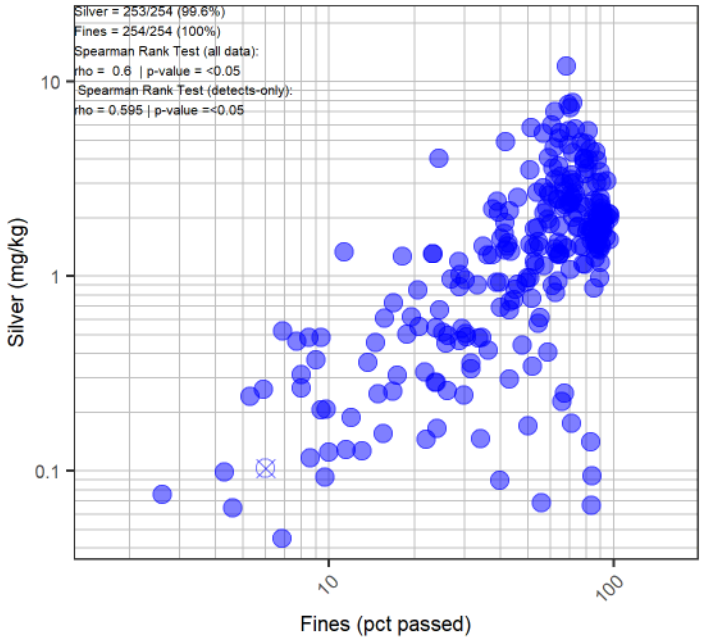
SEDIMENT CORRELATION - METALS AND FINES (SILT&CLAY)

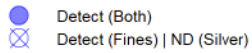
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

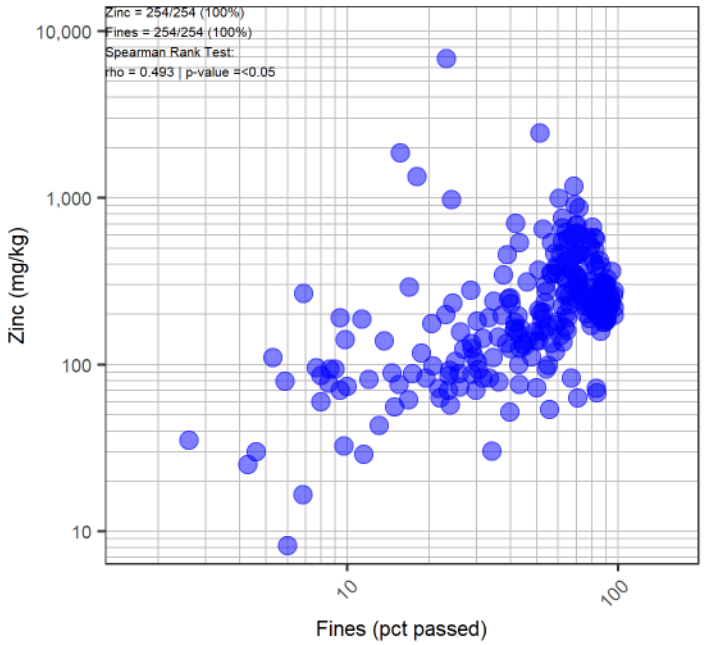
FIGURE
F-5

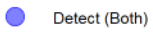












Notes:
1. For correlation analysis, non-detects included at 1/2 the quantitation limit.
2. Non-detects plotted at the quantitation limit.
3. Includes Phase III surface sediment data collected from 2014 to 2016 (including the SQT and crab/clam sediment).

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT CORRELATION - METALS AND FINES (SILT&CLAY)

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-6

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-7_SurfaceSediment_TCDD.mxd 7/23/2021 12:35:27 PM

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- INDUSTRIAL WATERFRONT
- INTERTIDAL AREAS
- NAVIGATION CHANNELS
- PORT CHANNELS
- SUB-TIDAL FLATS
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- TRANSITIONAL SLOPES

GEOMORPHIC UNITS

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- 1
- 2
- 3
- 4
- 5
- 6

USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

2,3,7,8-TCDD (ng/kg) (SEE NOTE 3)

- ≤ 14.7
- < 14.7 - 45
- < 45 - 83.3
- < 83.3 - 148
- > 148

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

1. HORIZONTAL DATUM: NEW JERSEY STATE PLANE COORDINATE SYSTEM, NAD83.
2. SHORELINE IS DIGITIZED FROM AERIAL PHOTO DATED JULY 2002 (INTRASEARCH, ENGLEWOOD, CO).
3. RANGES PRESENTED FOR RESULTS ARE BASED ON THE 25TH, 50TH, 75TH, AND 90TH PERCENTILE OF THE SURFACE SEDIMENT DATA SET.
4. SAMPLING LOCATIONS COLLECTED DURING PHASE I/II FROM WITHIN THE NAVIGATION CHANNEL IN NEWARK BAY SOUTH AND NEWARK BAY CENTRAL MAY HAVE BEEN AFFECTED BY DREDGING ACTIVITIES CONDUCTED SINCE SAMPLE COLLECTION.
5. COMP01-COMP10 ARE COMPOSITE SAMPLES COLLECTED IN THE DREDGED PORTION OF THE NAVIGATION CHANNEL DURING THE 2016 PHASE III SAMPLING PROGRAM. A SYMBOL LOCATED CENTRALLY WITHIN EACH COMPOSITE AREA IS COLOR-CODED ACCORDING TO THE CONCENTRATION VALUES AS SHOWN IN THE LEGEND ABOVE.
6. LOCATIONS OUTSIDE THE STUDY AREA ARE SHOWN FOR CONSISTENCY BUT NOT INCLUDED IN STATISTICAL ANALYSIS.
7. GEOGRAPHIC ZONE BOUNDARIES ARE USED TO DIVIDE THE STUDY AREA INTO NORTH, CENTRAL, AND SOUTH ZONES.
8. THE NEWARK BAY STUDY AREA BOUNDARY WAS USEPA APPROVED AND UTILIZED IN THE PHASE I, II, AND III SEDIMENT INVESTIGATIONS. IN APRIL 2020, USEPA REVISED THE BOUNDARY BETWEEN OU2 AND OU3 SUCH THAT KEARNY POINT IS ENTIRELY INCLUDED IN OU2 (USEPA 2020), AS SHOWN. THE BOUNDARY MAY BE CHANGED BY USEPA FOR FUTURE INVESTIGATIONS UNDER THE RI/FS.
9. BE-7 BEARING LOCATIONS ARE DEFINED AS LOCATIONS WITH SURFACE SAMPLES ANALYZED FOR BE-7 AND RESULT CONCENTRATIONS GREATER THAN OR EQUAL TO 0.5 PICOCURIE PER GRAM (PCI/G). THESE LOCATIONS ARE CONSIDERED TO INDICATE RECENTLY DEPOSITED SEDIMENTS. ONLY PHASE I/II SAMPLES WERE ANALYZED FOR BE-7.
10. THE CONRAIL BRIDGE REMNANTS, BAYONNE BRIDGE, AND GOETHALS BRIDGE ARE CONVENIENT LANDMARKS, BUT THEY DO NOT CONSTITUTE ADMINISTRATIVE BOUNDARIES.
11. REFERENCE:
A. USEPA. 2020. DIAMOND ALKALI SUPERFUND SITE - BOUNDARY BETWEEN OPERABLE UNIT 2 AND OPERABLE UNIT 3. MEMORANDUM FROM MICHAEL SIVAK, BRANCH CHIEF OF PASSAIC, HACKENSACK, AND NEWARK BAY REMEDIATION BRANCH TO FILE. APRIL 6.

HACKENSACK RIVER
PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
NEWARK BAY CENTRAL
COMP04
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
SHOOTERS ISLAND
COMP09
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000 Feet
GRAPHIC SCALE

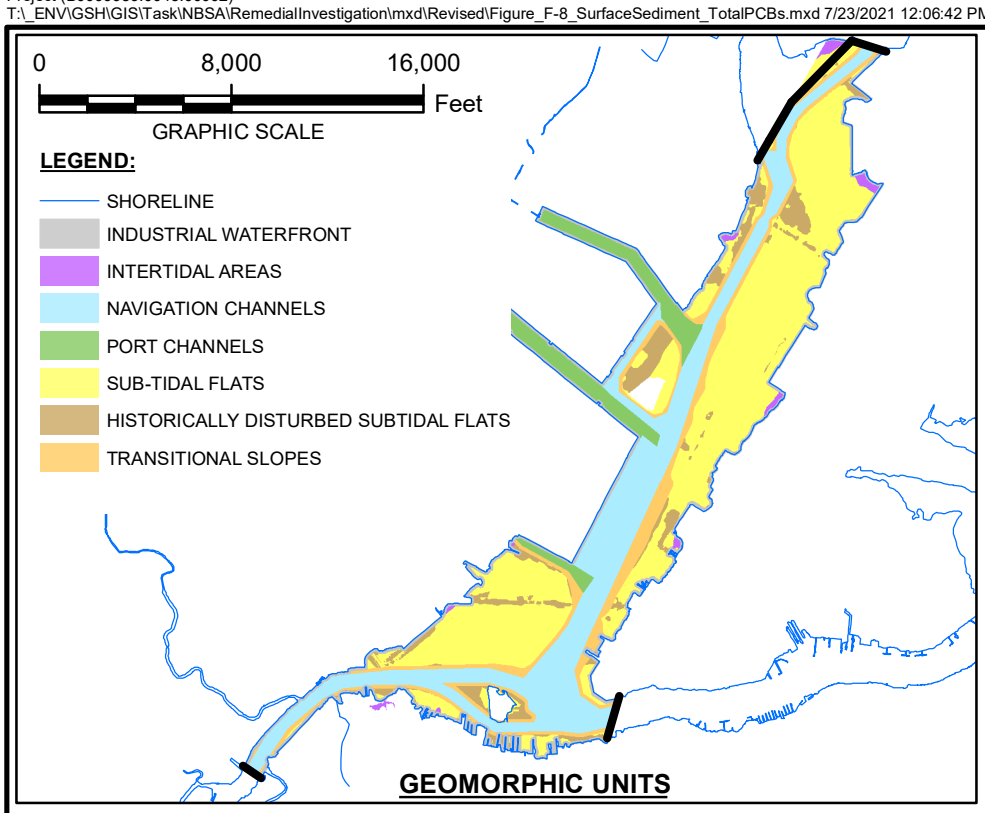
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - 2,3,7,8-TCDD

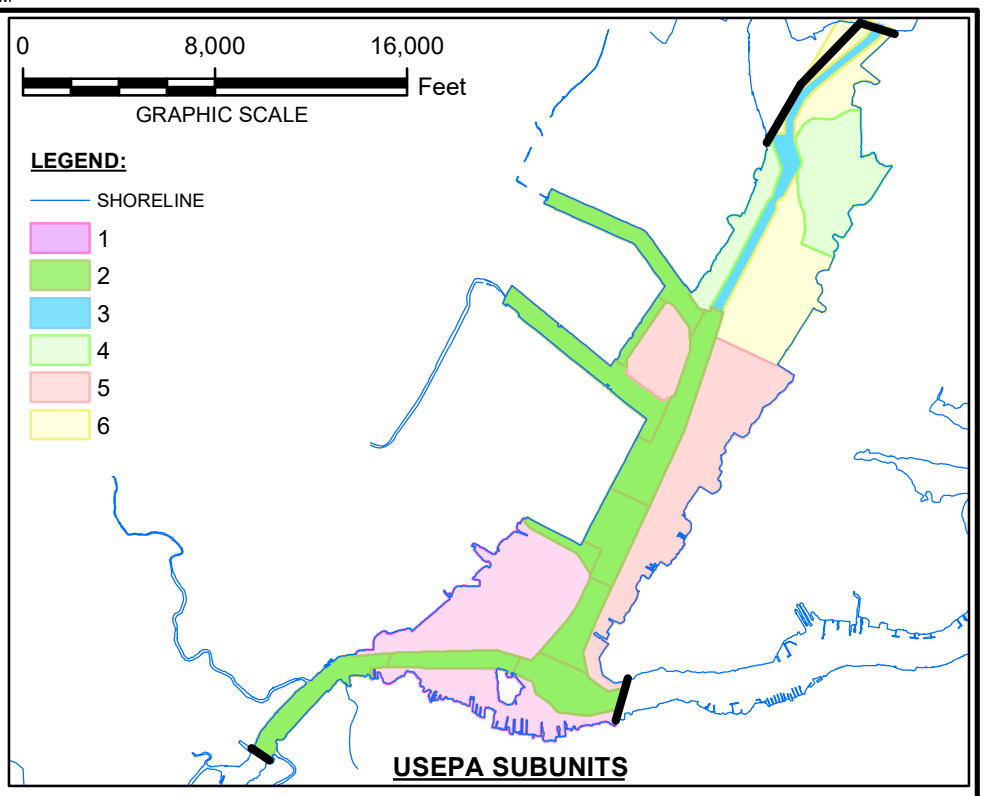
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-7

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-8_SurfaceSediment_TotalPCBs.mxd 7/23/2021 12:06:42 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

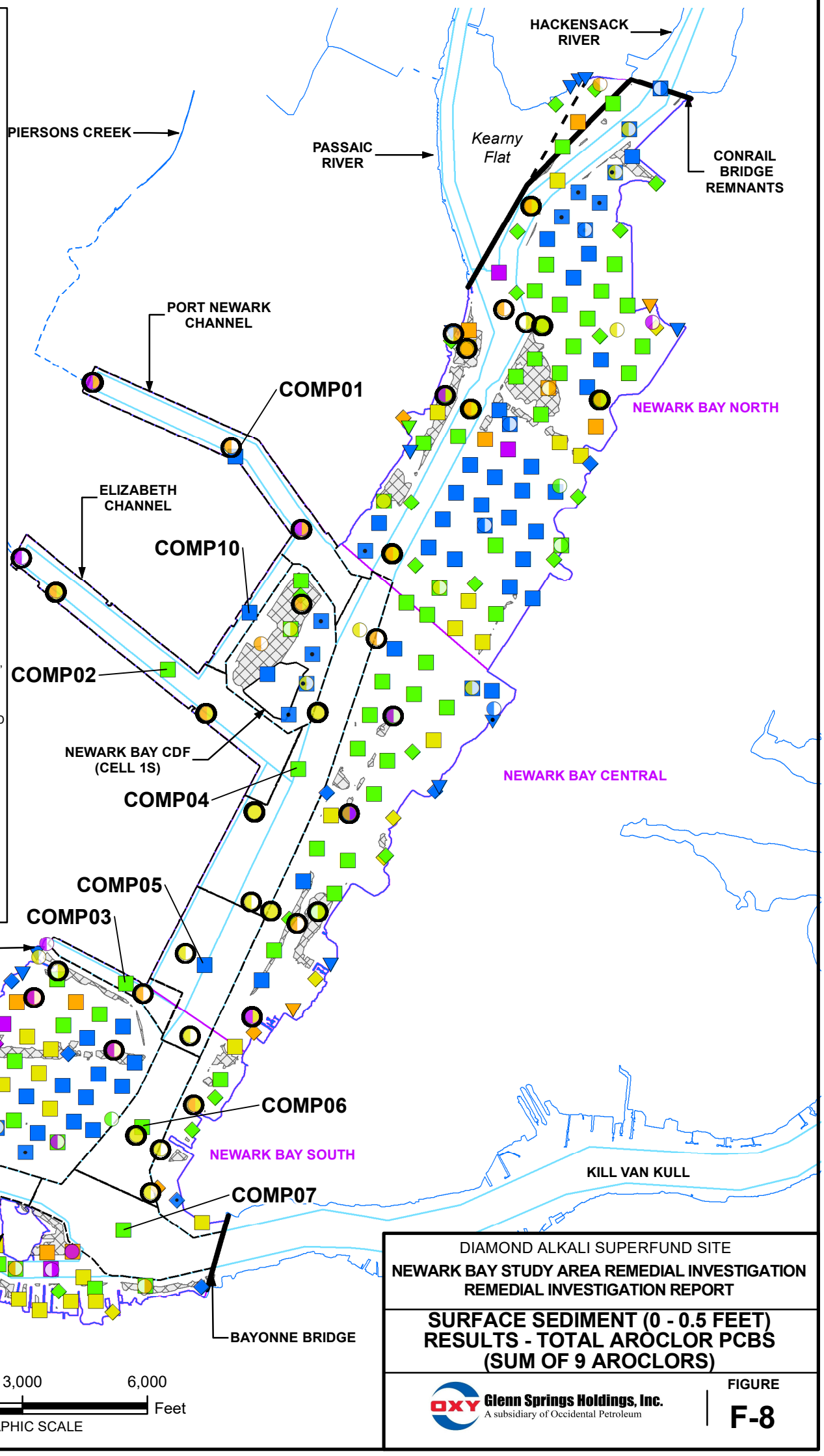
TOTAL PCBs (ug/kg) (SEE NOTE 3)

- ≤ 89
- < 89 - 200
- < 200 - 440
- < 440 - 820
- > 820

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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4. SAMPLING LOCATIONS COLLECTED DURING PHASE I/II FROM WITHIN THE NAVIGATION CHANNEL IN NEWARK BAY SOUTH AND NEWARK BAY CENTRAL MAY HAVE BEEN AFFECTED BY DREDGING ACTIVITIES CONDUCTED SINCE SAMPLE COLLECTION.
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DIAMOND ALKALI SUPERFUND SITE

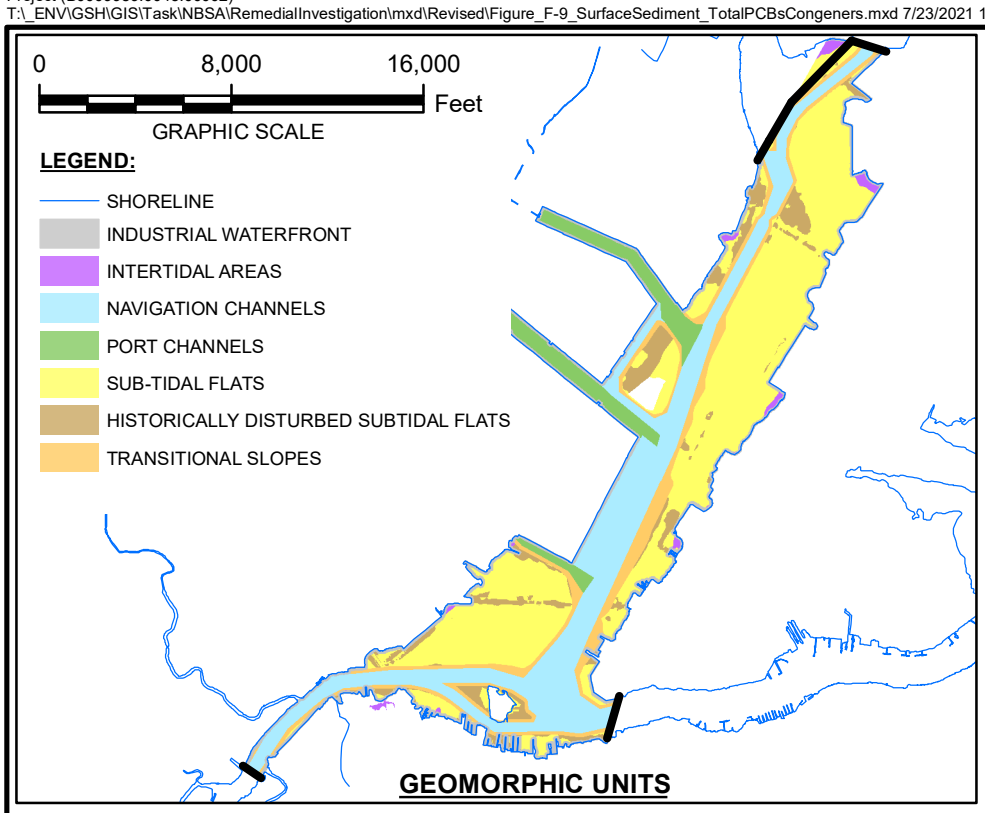
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TOTAL AROCLOR PCBS (SUM OF 9 AROCLORS)

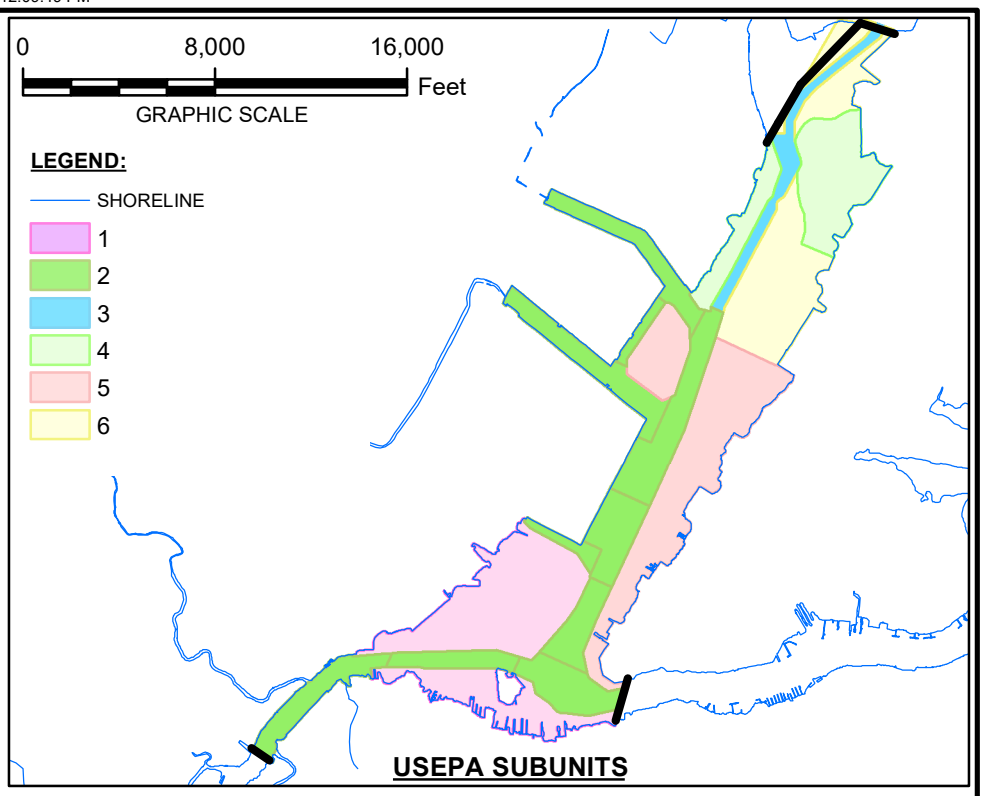
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-8

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-9_SurfaceSediment_TotalPCBsCongeners.mxd 7/23/2021 12:09:49 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

TOTAL PCBs CONGENER (ng/kg) (SEE NOTE 3)

- ≤ 137,000
- < 137,000 - 348,000
- < 348,000 - 614,000
- < 614,000 - 1,160,000
- > 1,160,000

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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3. RANGES PRESENTED FOR RESULTS ARE BASED ON THE 25TH, 50TH, 75TH, AND 90TH PERCENTILE OF THE SURFACE SEDIMENT DATA SET.
4. SAMPLING LOCATIONS COLLECTED DURING PHASE I/II FROM WITHIN THE NAVIGATION CHANNEL IN NEWARK BAY SOUTH AND NEWARK BAY CENTRAL MAY HAVE BEEN AFFECTED BY DREDGING ACTIVITIES CONDUCTED SINCE SAMPLE COLLECTION.
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HACKENSACK RIVER
PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
COMP04
NEWARK BAY CENTRAL
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
COMP09
SHOOTERS ISLAND
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000
Feet
GRAPHIC SCALE

DIAMOND ALKALI SUPERFUND SITE

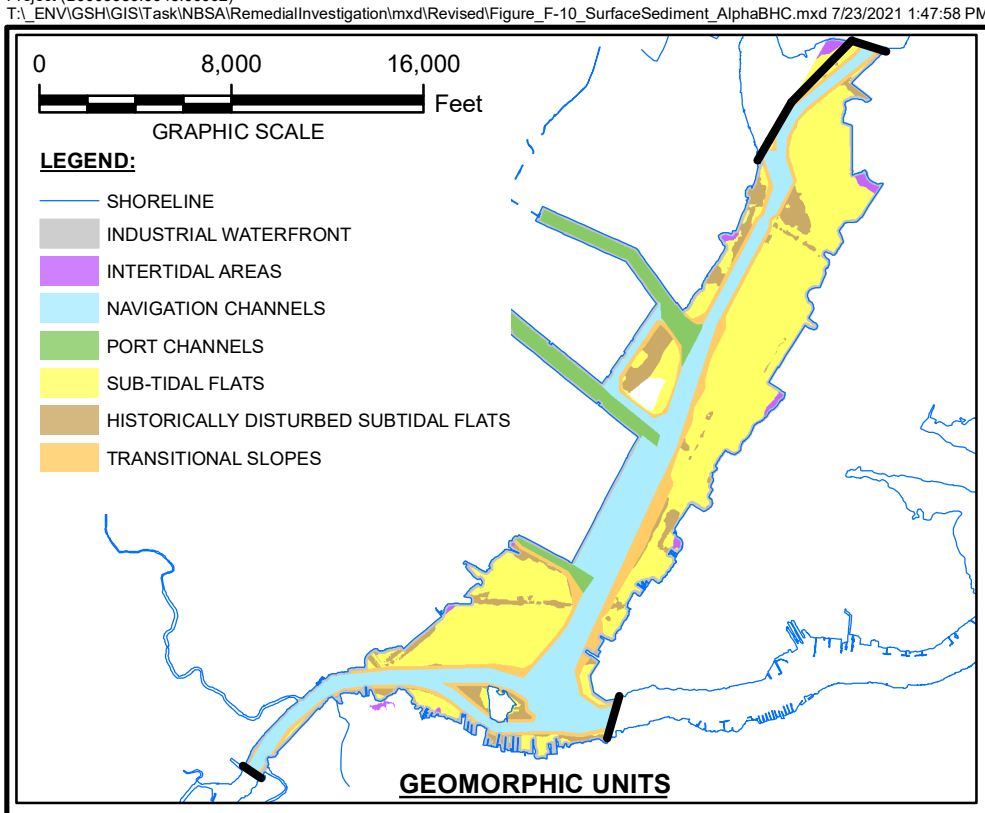
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TOTAL PCB CONGENERS (209)

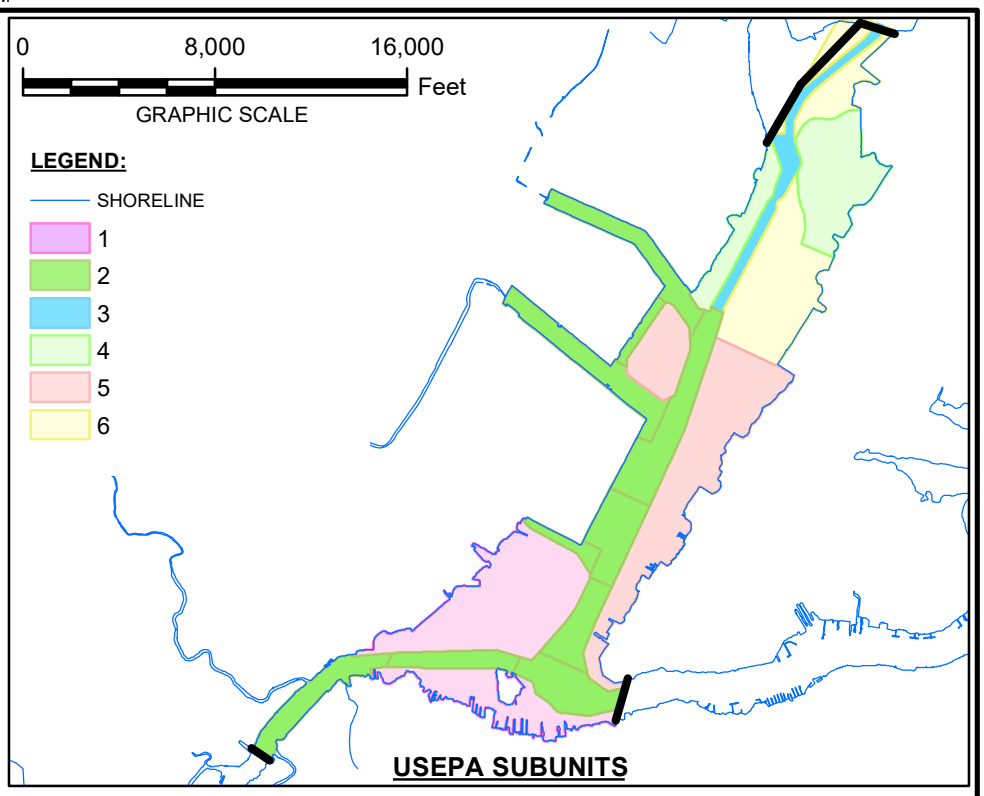
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-9

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-10_SurfaceSediment_AlphaBHC.mxd 7/23/2021 1:47:58 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

ALPHA-BHC (pg/g) (SEE NOTE 3)

- ≤ 48.9
- < 48.9 - 132
- < 132 - 3600
- < 3600 - 9700
- > 9700

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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4. SAMPLING LOCATIONS COLLECTED DURING PHASE I/II FROM WITHIN THE NAVIGATION CHANNEL IN NEWARK BAY SOUTH AND NEWARK BAY CENTRAL MAY HAVE BEEN AFFECTED BY DREDGING ACTIVITIES CONDUCTED SINCE SAMPLE COLLECTION.
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6. LOCATIONS OUTSIDE THE STUDY AREA ARE SHOWN FOR CONSISTENCY BUT NOT INCLUDED IN STATISTICAL ANALYSIS.
7. GEOGRAPHIC ZONE BOUNDARIES ARE USED TO DIVIDE THE STUDY AREA INTO NORTH, CENTRAL, AND SOUTH ZONES.
8. THE NEWARK BAY STUDY AREA BOUNDARY WAS USEPA APPROVED AND UTILIZED IN THE PHASE I, II, AND III SEDIMENT INVESTIGATIONS. IN APRIL 2020, USEPA REVISED THE BOUNDARY BETWEEN OU2 AND OU3 SUCH THAT KEARNY POINT IS ENTIRELY INCLUDED IN OU2 (USEPA 2020), AS SHOWN. THE BOUNDARY MAY BE CHANGED BY USEPA FOR FUTURE INVESTIGATIONS UNDER THE RI/FS.
9. BE-7 BEARING LOCATIONS ARE DEFINED AS LOCATIONS WITH SURFACE SAMPLES ANALYZED FOR BE-7 AND RESULT CONCENTRATIONS GREATER THAN OR EQUAL TO 0.5 PICOCURIE PER GRAM (PCI/G). THESE LOCATIONS ARE CONSIDERED TO INDICATE RECENTLY DEPOSITED SEDIMENTS. ONLY PHASE I/II SAMPLES WERE ANALYZED FOR BE-7.
10. THE CONRAIL BRIDGE REMNANTS, BAYONNE BRIDGE, AND GOETHALS BRIDGE ARE CONVENIENT LANDMARKS, BUT THEY DO NOT CONSTITUTE ADMINISTRATIVE BOUNDARIES.
11. REFERENCE:
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HACKENSACK RIVER
PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
COMP04
NEWARK BAY CENTRAL
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
COMP09
SHOOTERS ISLAND
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000
Feet
GRAPHIC SCALE

DIAMOND ALKALI SUPERFUND SITE

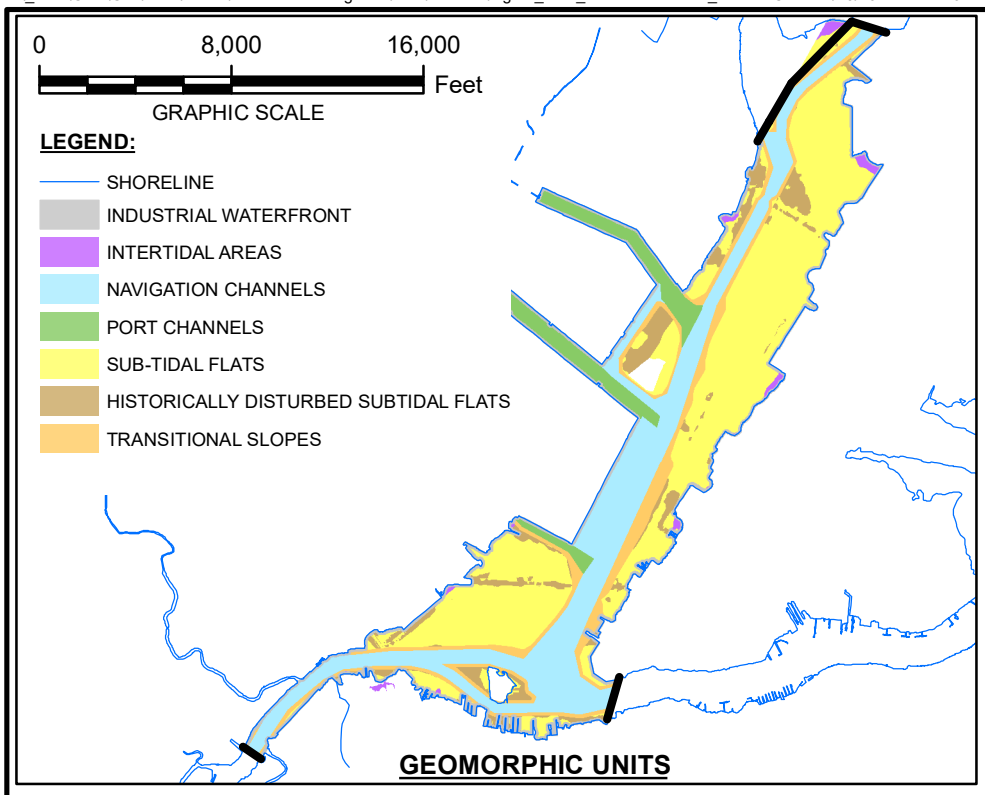
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - ALPHA-BHC

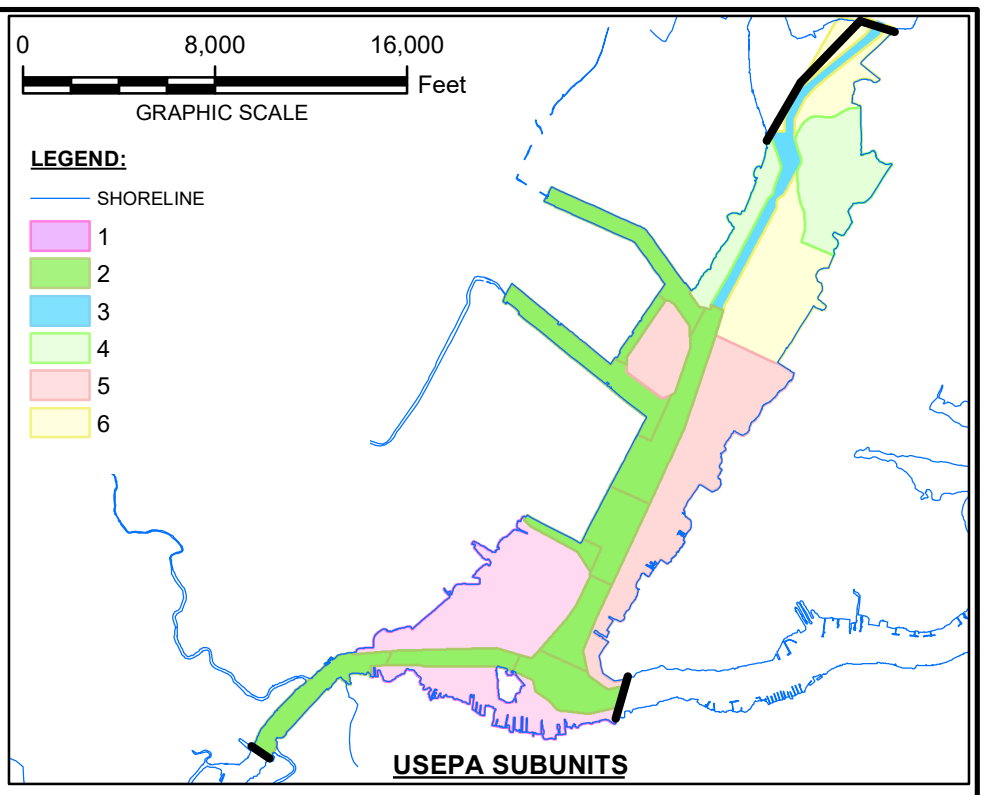
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-10

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-11_SurfaceSediment_BetaBHC.mxd 7/23/2021 12:14:29 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

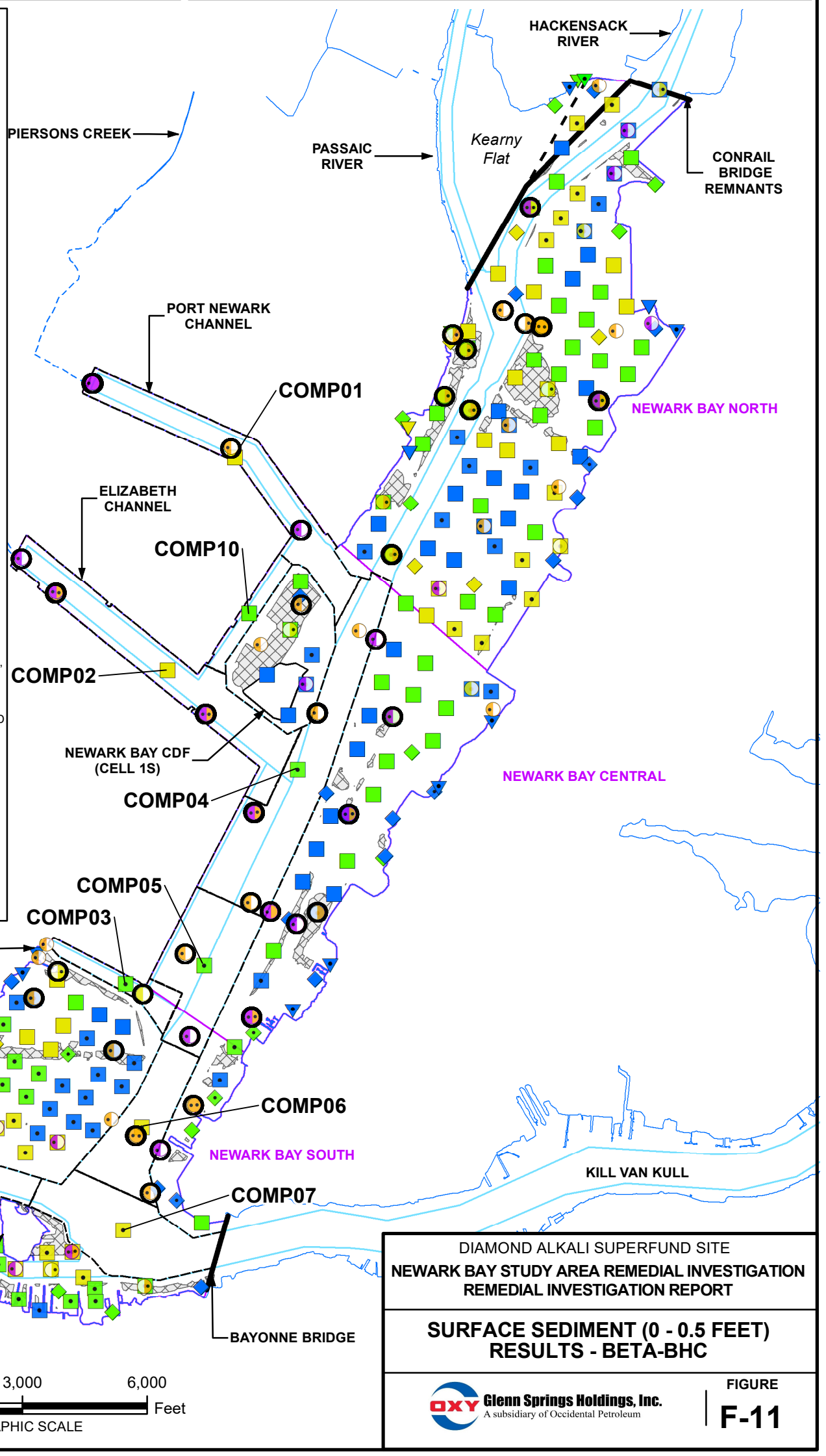
BETA-BHC (pg/g) (SEE NOTE 3)

- ≤ 57
- < 57 - 139
- < 139 - 3100
- < 3100 - 9900
- > 9900

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

1. HORIZONTAL DATUM: NEW JERSEY STATE PLANE COORDINATE SYSTEM, NAD83.
2. SHORELINE IS DIGITIZED FROM AERIAL PHOTO DATED JULY 2002 (INTRASEARCH, ENGLEWOOD, CO).
3. RANGES PRESENTED FOR RESULTS ARE BASED ON THE 25TH, 50TH, 75TH, AND 90TH PERCENTILE OF THE SURFACE SEDIMENT DATA SET.
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DIAMOND ALKALI SUPERFUND SITE

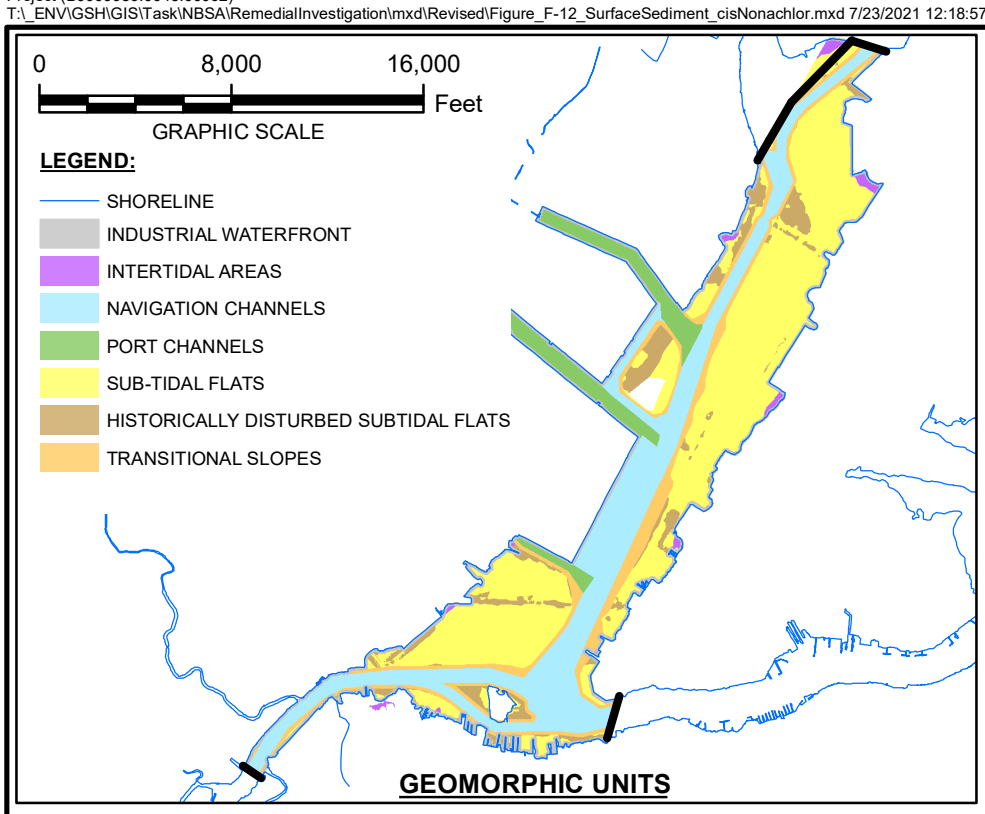
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - BETA-BHC

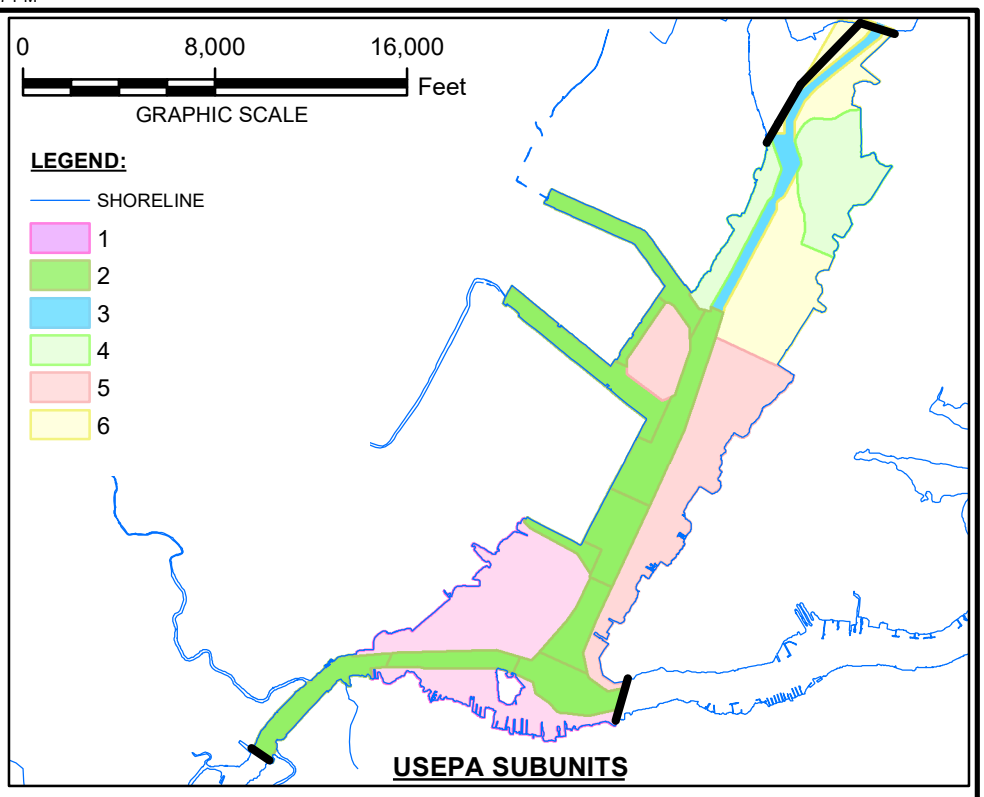
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-11

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-12_SurfaceSediment_cisNonachlor.mxd 7/23/2021 12:18:57 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

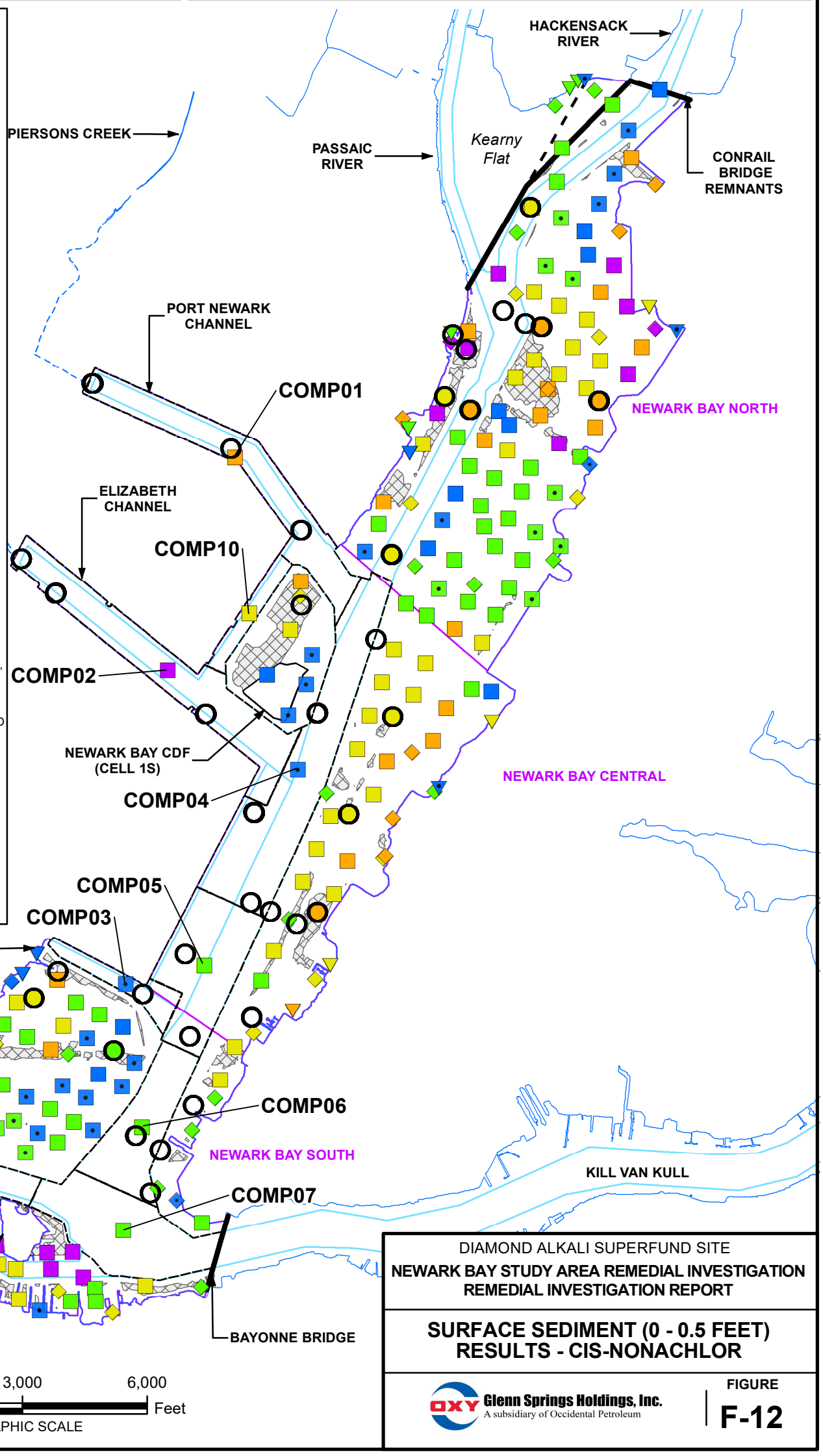
CIS-NONACHLOR (pg/g) (SEE NOTE 3)

- ≤ 213.5
- < 213.5 - 780.5
- < 780.5 - 1210
- < 1210 - 1930
- > 1930

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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DIAMOND ALKALI SUPERFUND SITE

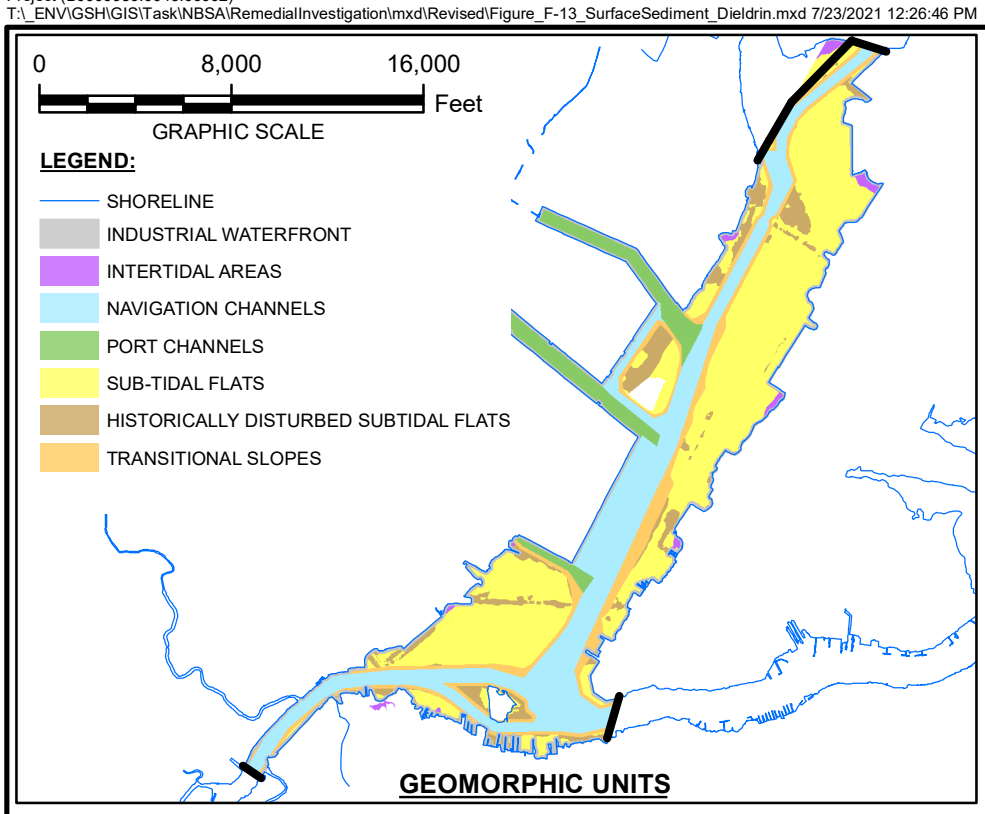
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - CIS-NONACHLOR

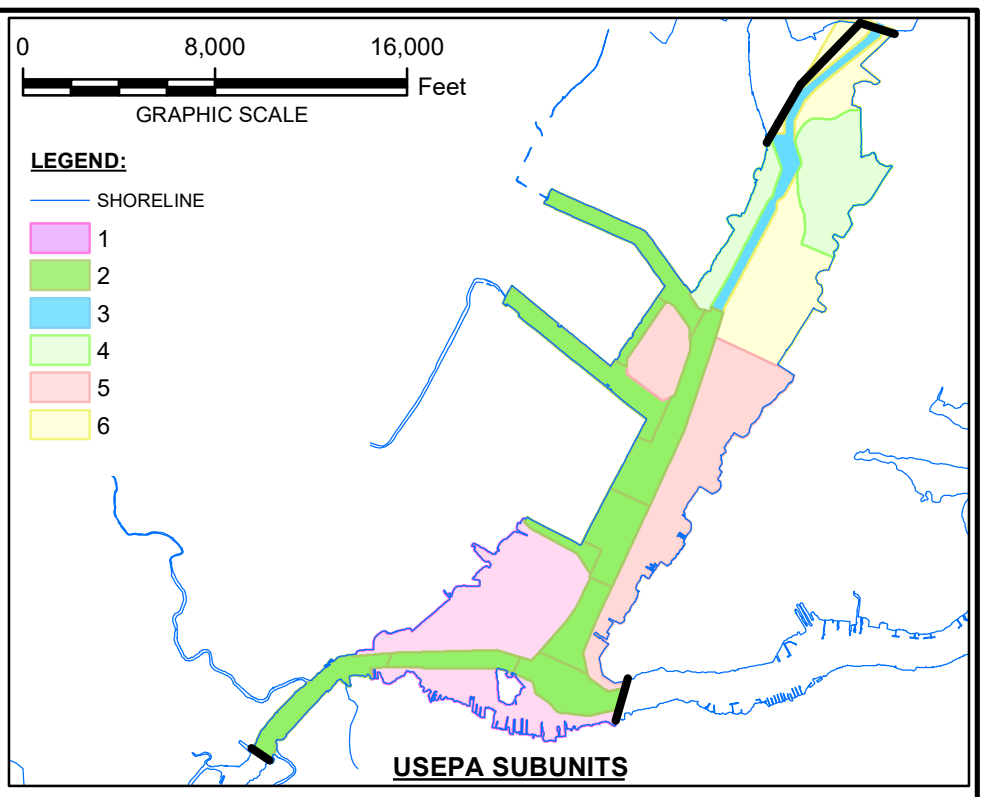
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-12

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-13_SurfaceSediment_Dieldrin.mxd 7/23/2021 12:26:46 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

DIELDRIN (pg/g) (SEE NOTE 3)

- ≤ 670
- < 670 - 1550
- < 1550 - 7800
- < 7800 - 20,000
- > 20,000

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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HACKENSACK RIVER
PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
NEWARK BAY CENTRAL
COMP04
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
SHOOTERS ISLAND
COMP09
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000
Feet
GRAPHIC SCALE

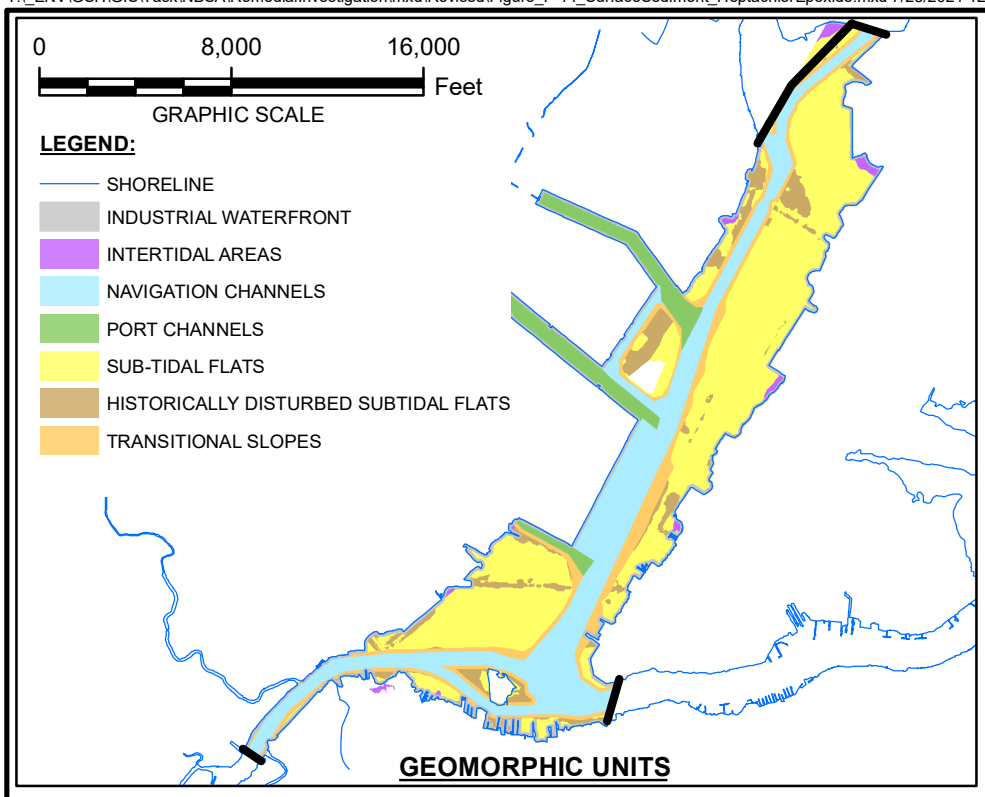
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - DIELDRIN

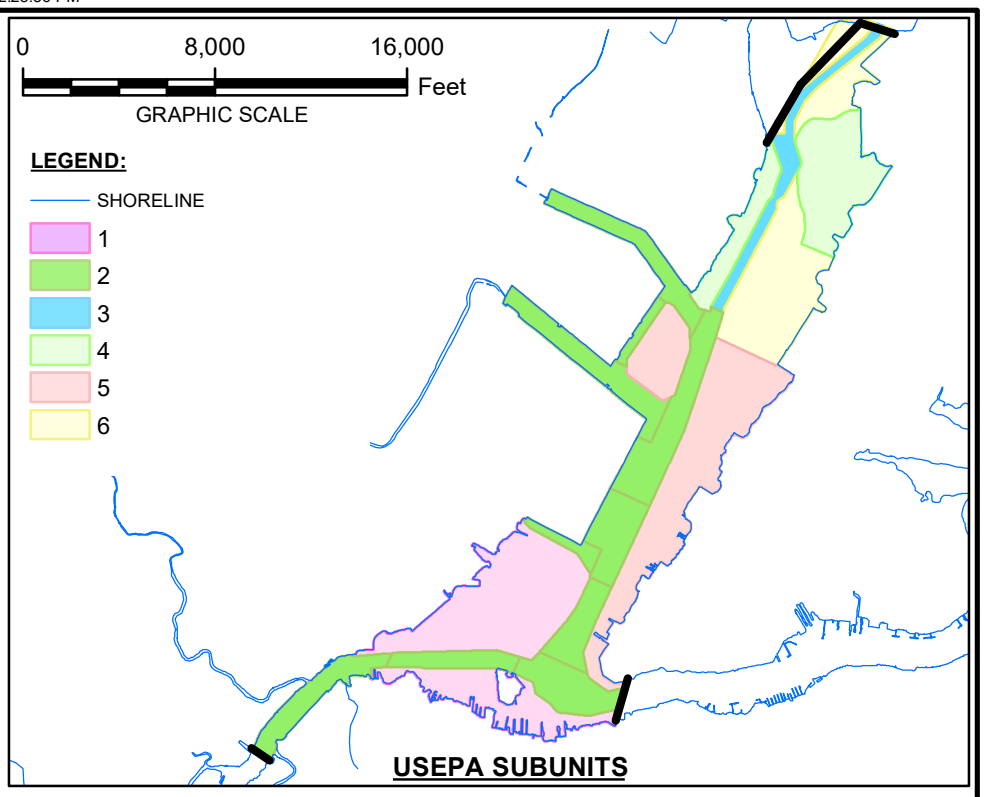
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-13

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-14_SurfaceSediment_HeptachlorEpoxide.mxd 7/23/2021 12:28:56 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
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- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

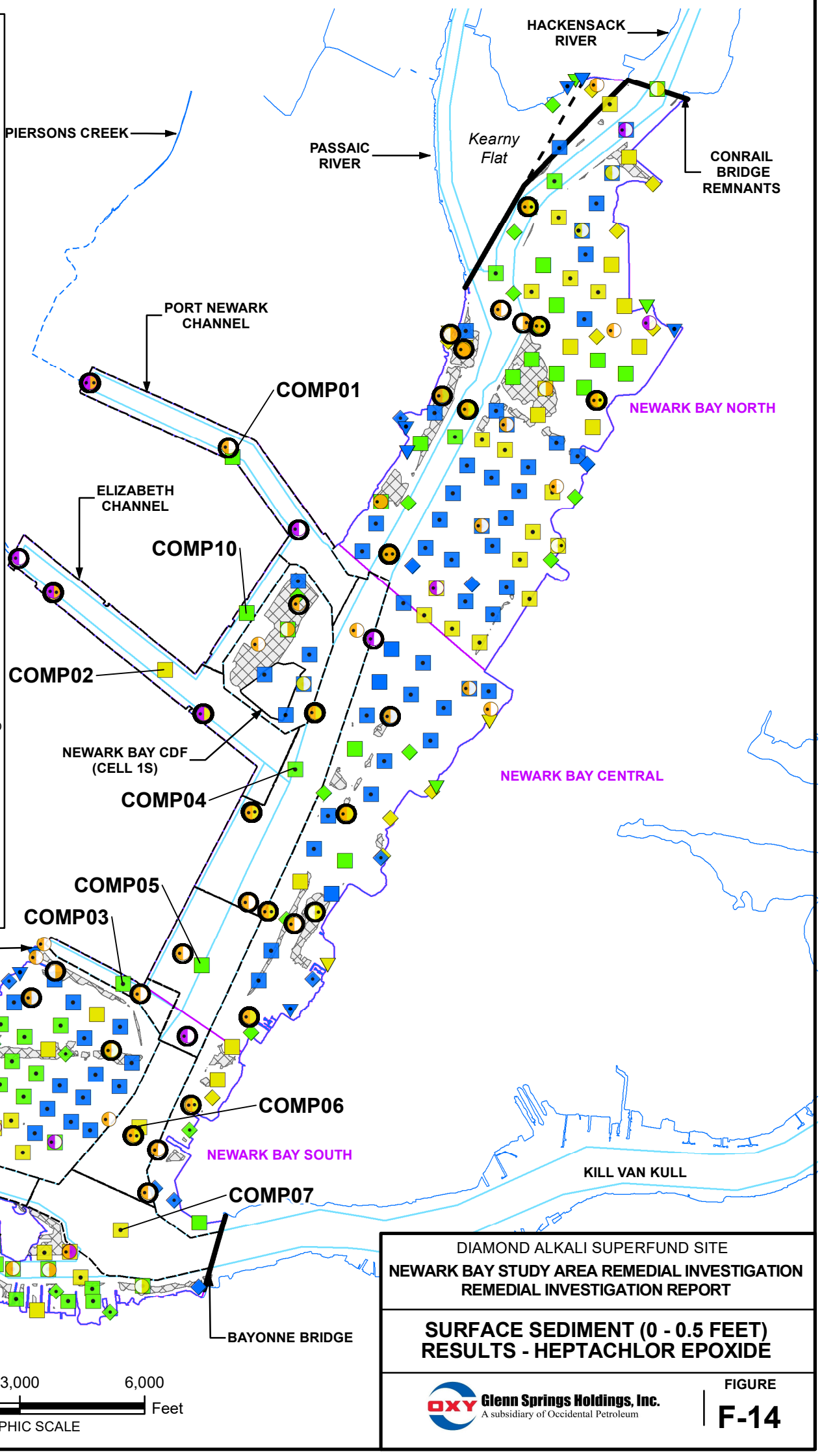
HEPTACHLOR EPOXIDE (pg/g) (SEE NOTE 3)

- ≤ 56.4
- < 56.4 - 127
- < 127 - 3,900
- < 3,900 - 11,000
- > 11,000

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
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DIAMOND ALKALI SUPERFUND SITE

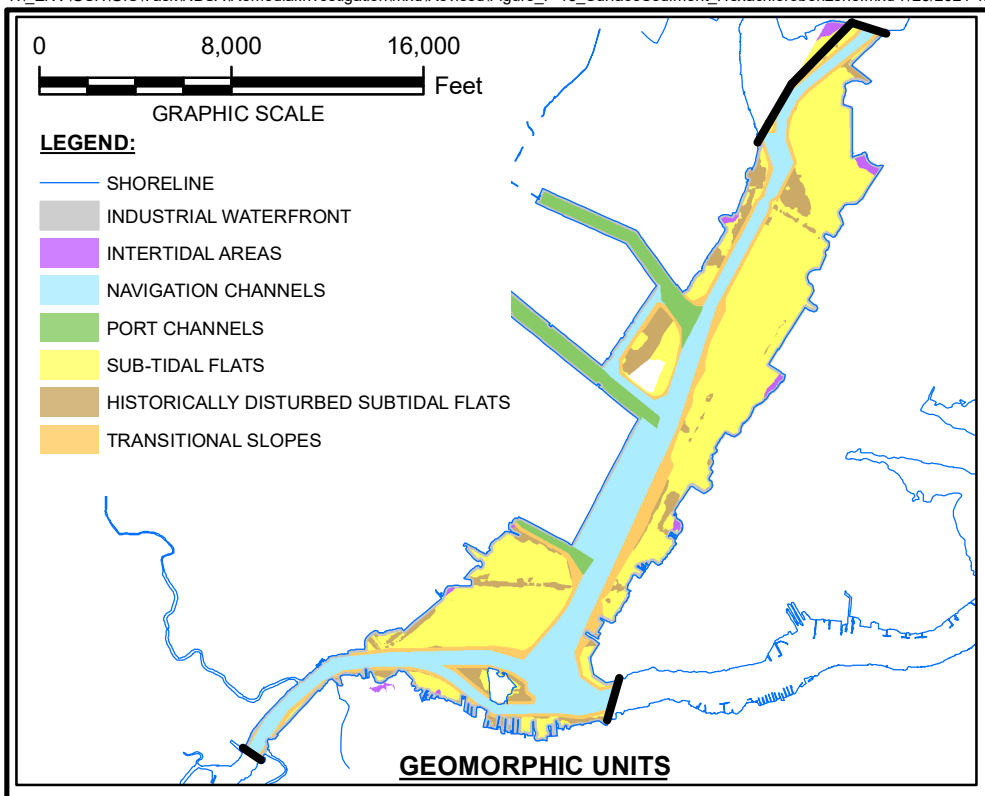
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - HEPTACHLOR EPOXIDE

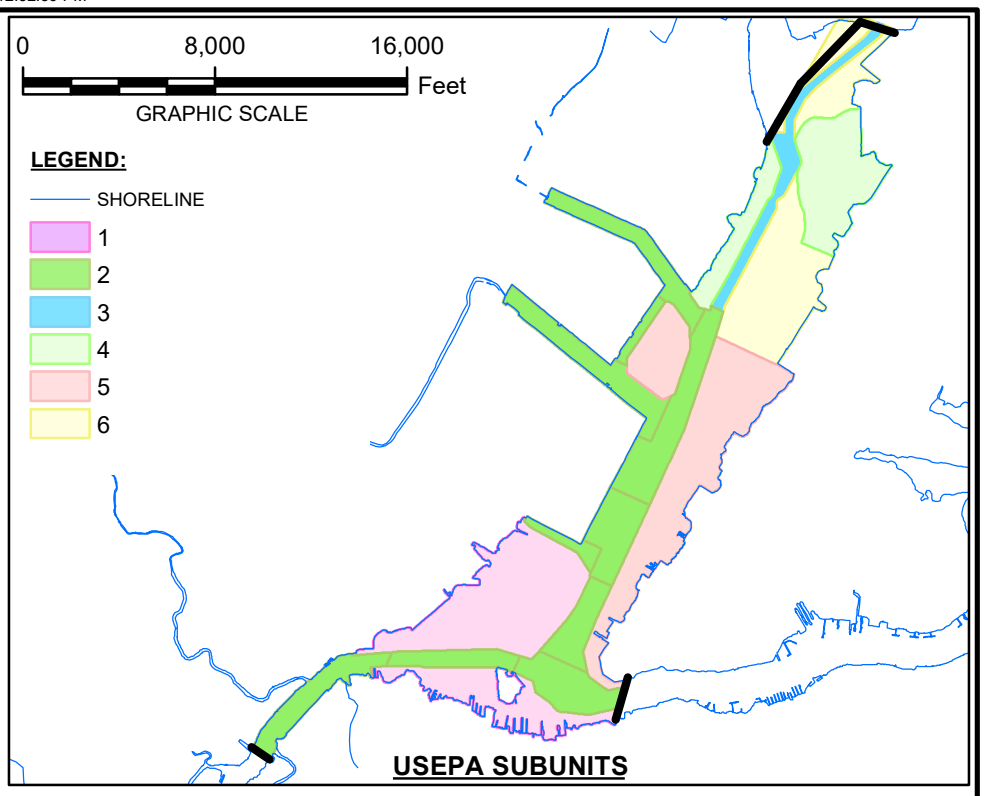
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-14

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-15_SurfaceSediment_Hexachlorobenzene.mxd 7/23/2021 12:32:39 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
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- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

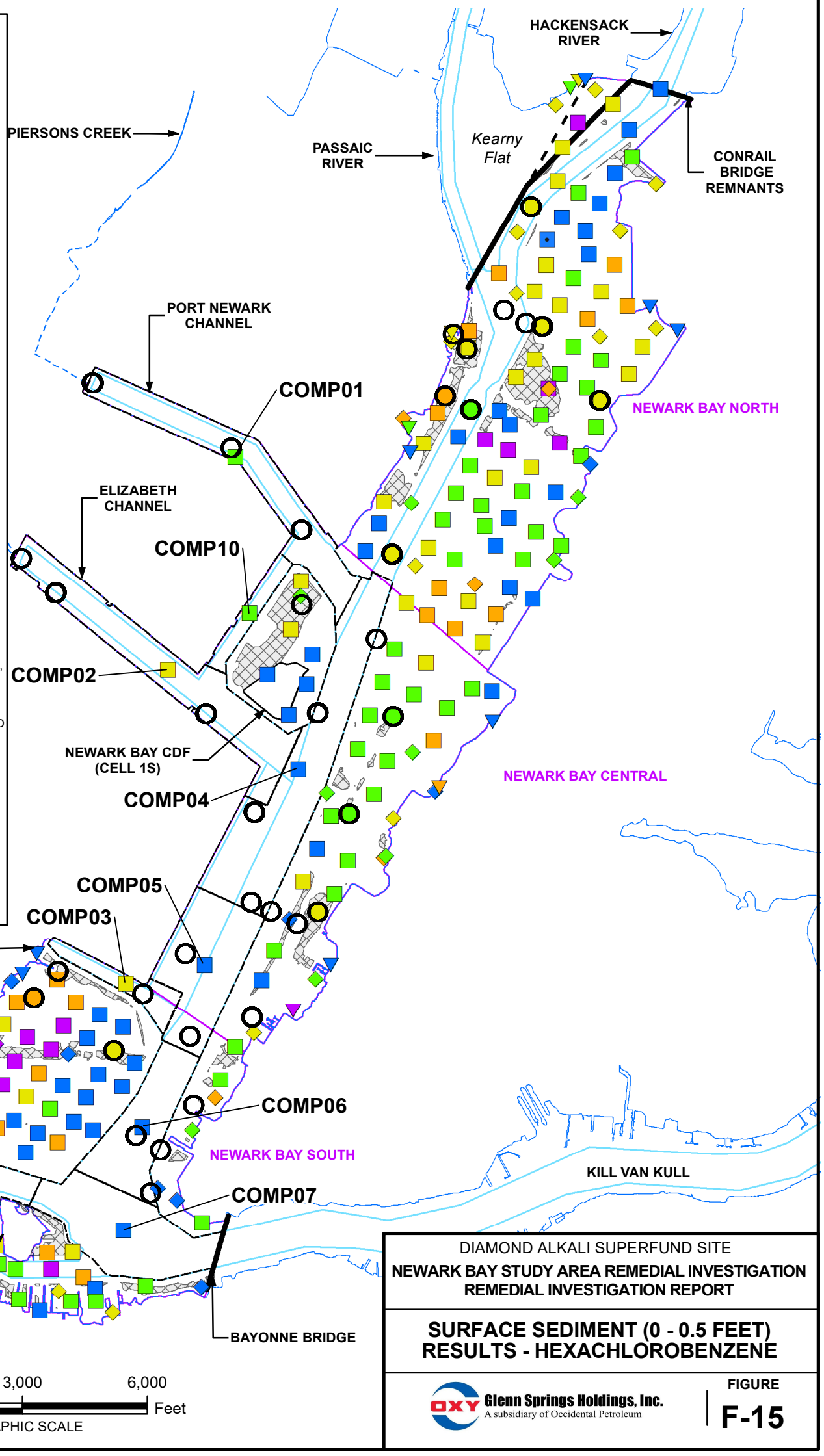
HEXACHLOROBENZENE (pg/g) (SEE NOTE 3)

- ≤ 471
- < 471 - 1040
- < 1040 - 2190
- < 2190 - 6120
- > 6120

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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DIAMOND ALKALI SUPERFUND SITE

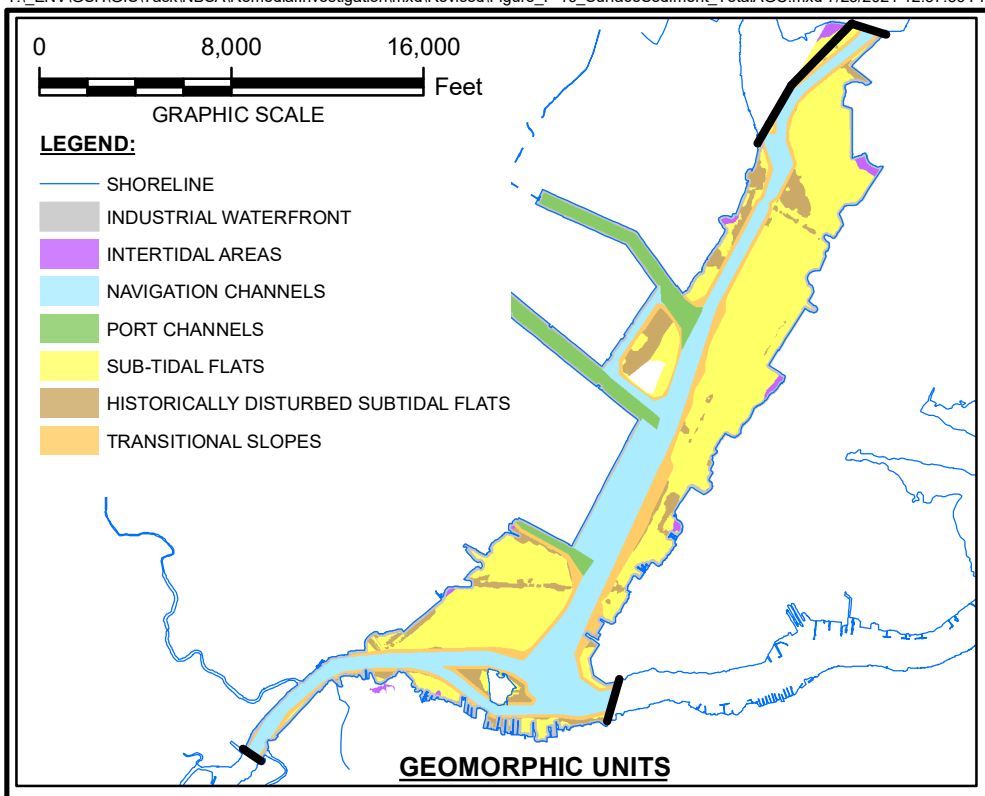
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - HEXACHLOROBENZENE

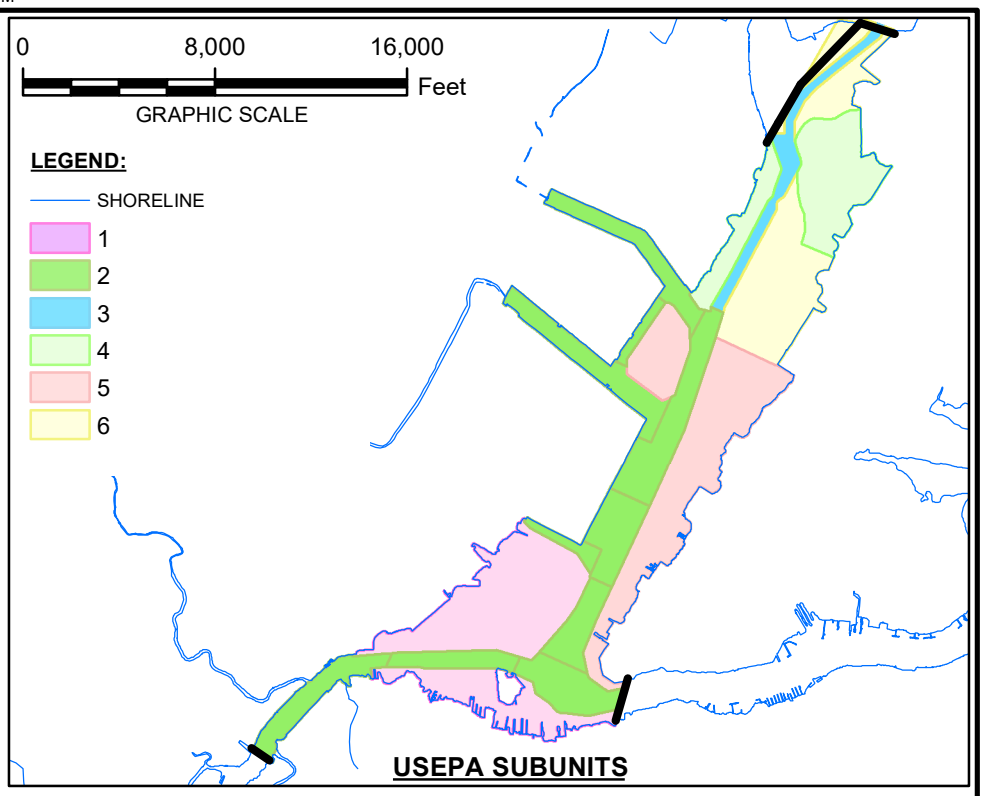
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-15

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-16_SurfaceSediment_TotalAGC.mxd 7/23/2021 12:37:36 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

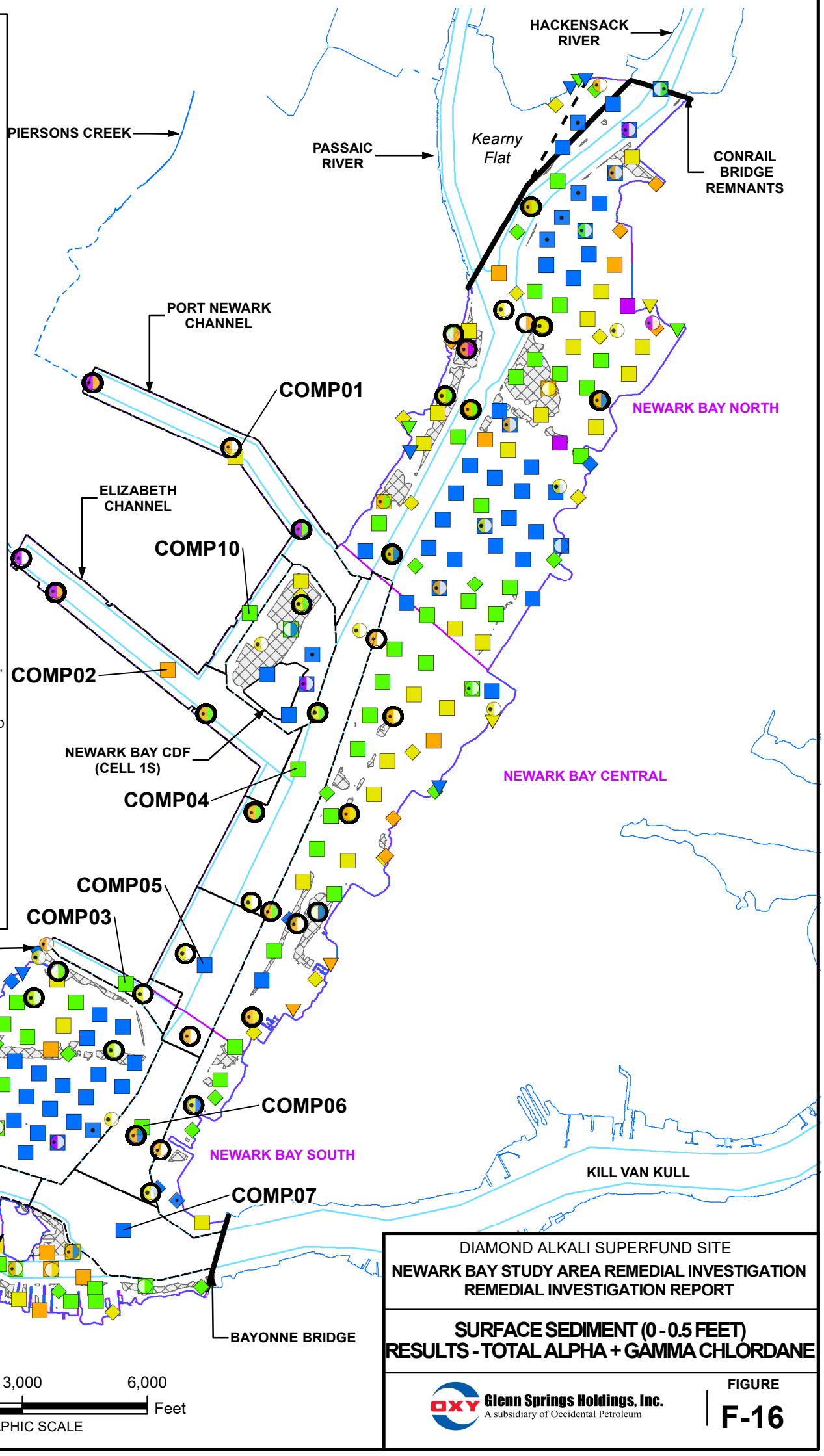
TOTAL ALPHA + GAMMA CHLORDANE (pg/g) (SEE NOTE 3)

- ≤ 1850
- < 1850 - 5400
- < 5400 - 9500
- < 9500 - 16,000
- > 16,000

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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DIAMOND ALKALI SUPERFUND SITE

NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TOTAL ALPHA + GAMMA CHLORDANE

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-16

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-17_SurfaceSediment_TotalDDx_24_44.mxd 7/23/2021 12:44:35 PM

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- INDUSTRIAL WATERFRONT
- INTERTIDAL AREAS
- NAVIGATION CHANNELS
- PORT CHANNELS
- SUB-TIDAL FLATS
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- TRANSITIONAL SLOPES

GEOMORPHIC UNITS

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- 1
- 2
- 3
- 4
- 5
- 6

USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

TOTAL DDx (2,4 & 4,4) (SEE NOTE 3)

- ≤ 18,000
- < 18,000 - 34,000
- < 34,000 - 90,500
- < 90,500 - 355,000
- > 355,000

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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HACKENSACK RIVER
PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
NEWARK BAY CENTRAL
COMP04
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
COMP09
SHOOTERS ISLAND
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000 Feet
GRAPHIC SCALE

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TOTAL DDx (2,4 & 4,4)

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-17

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-18_SurfaceSediment_TotalDDx_44.mxd 7/23/2021 12:48:02 PM

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- INDUSTRIAL WATERFRONT
- INTERTIDAL AREAS
- NAVIGATION CHANNELS
- PORT CHANNELS
- SUB-TIDAL FLATS
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- TRANSITIONAL SLOPES

GEOMORPHIC UNITS

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- 1
- 2
- 3
- 4
- 5
- 6

USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
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- 2015 SQT SEDIMENT SAMPLE LOCATION
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- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

TOTAL DDx (pg/g) (SEE NOTE 3)

- ≤ 16,000
- < 16,000 - 27,000
- < 27,000 - 66,000
- < 66,000 - 210,000
- > 210,000

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
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PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
NEWARK BAY CENTRAL
COMP04
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
COMP09
SHOOTERS ISLAND
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000 Feet
GRAPHIC SCALE

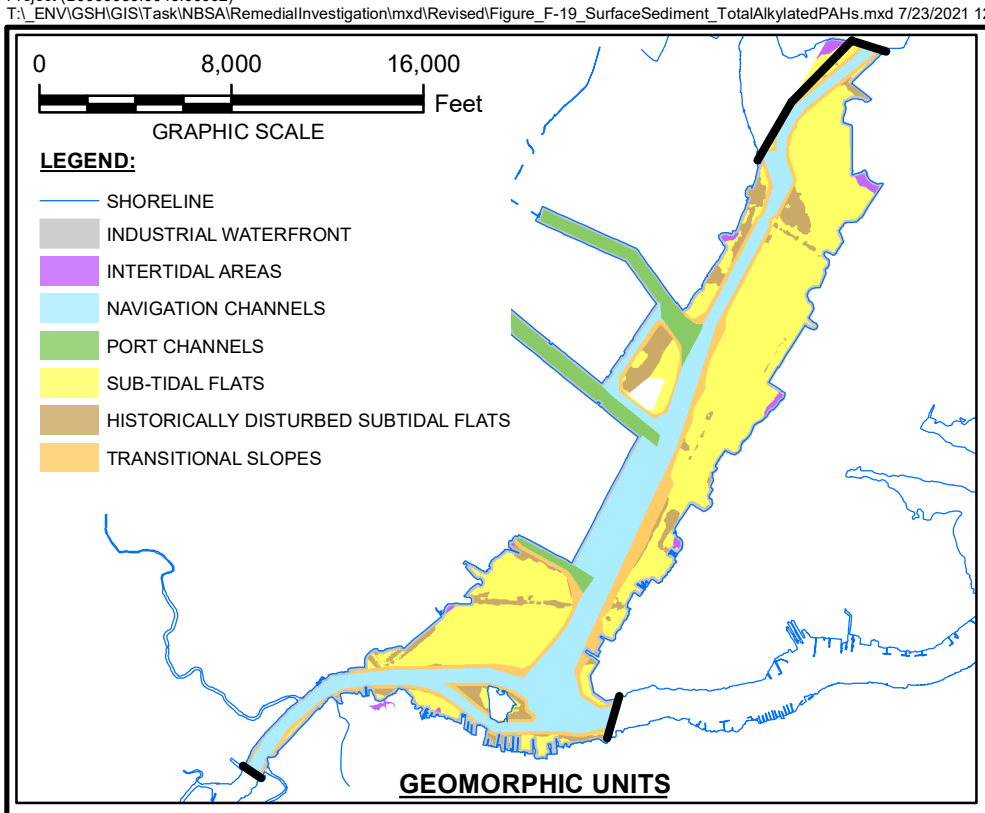
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TOTAL DDx (4,4)

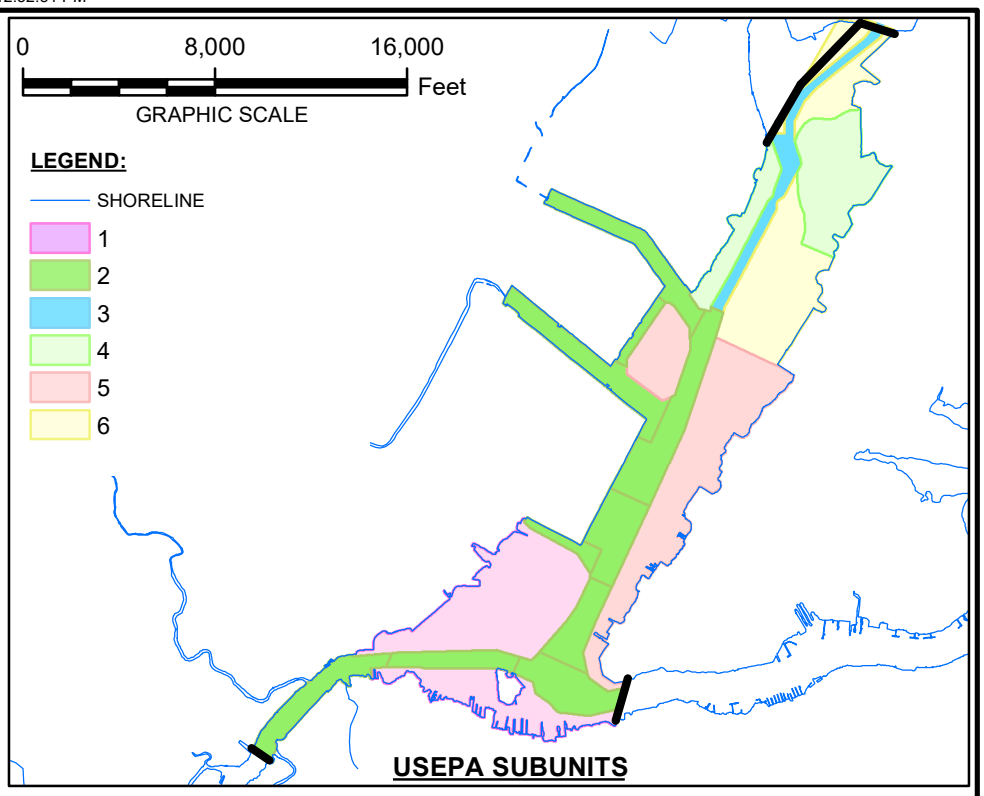
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-18

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-19_SurfaceSediment_TotalAlkylatedPAHs.mxd 7/23/2021 12:52:31 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
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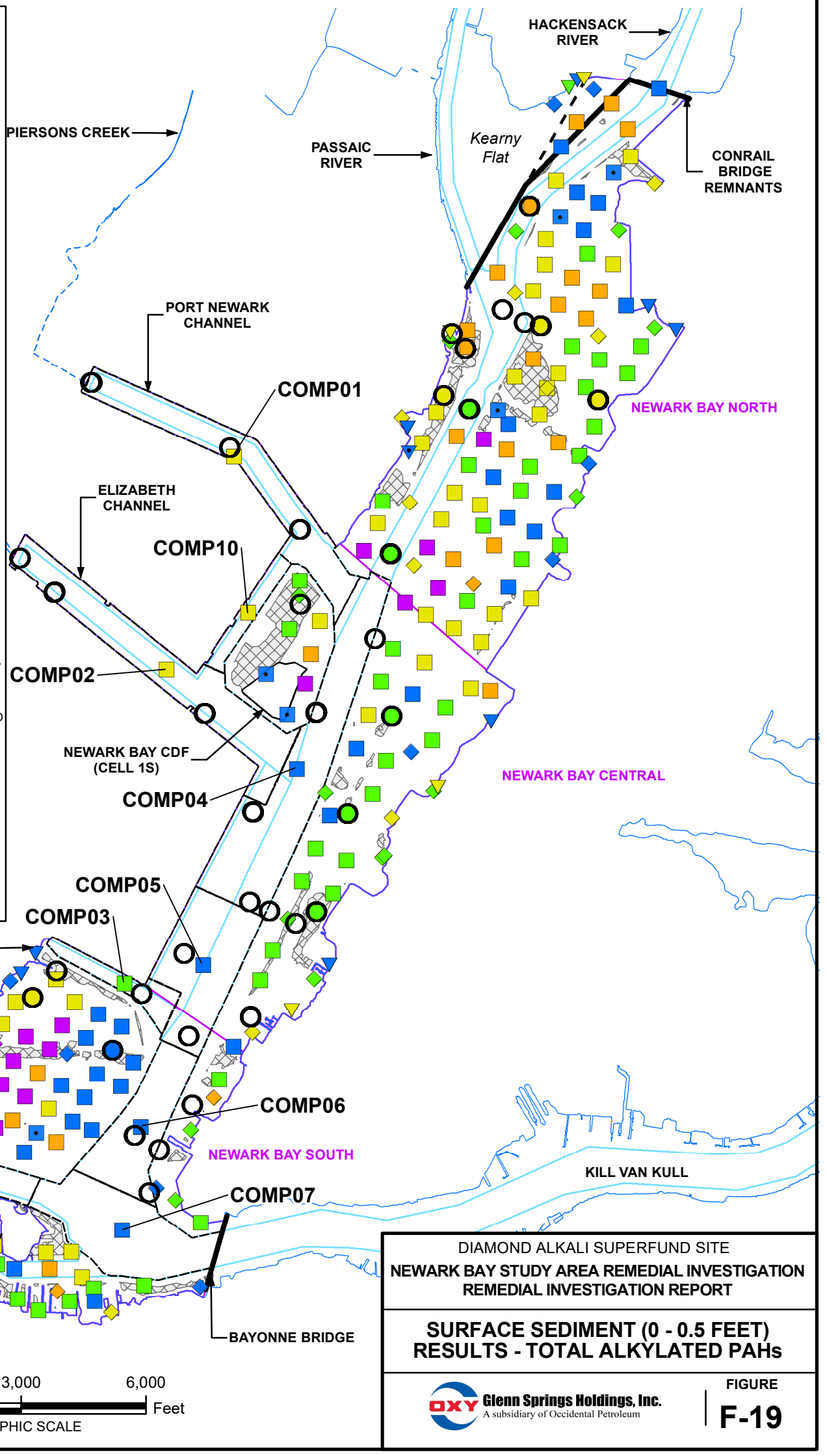
TOTAL ALKYLATED PAHs (ug/kg) (SEE NOTE 3)

- ≤ 3239
- < 3239 - 5985.5
- < 5985.5 - 13,246
- < 13,246 - 30,422
- > 30,422

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
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DIAMOND ALKALI SUPERFUND SITE

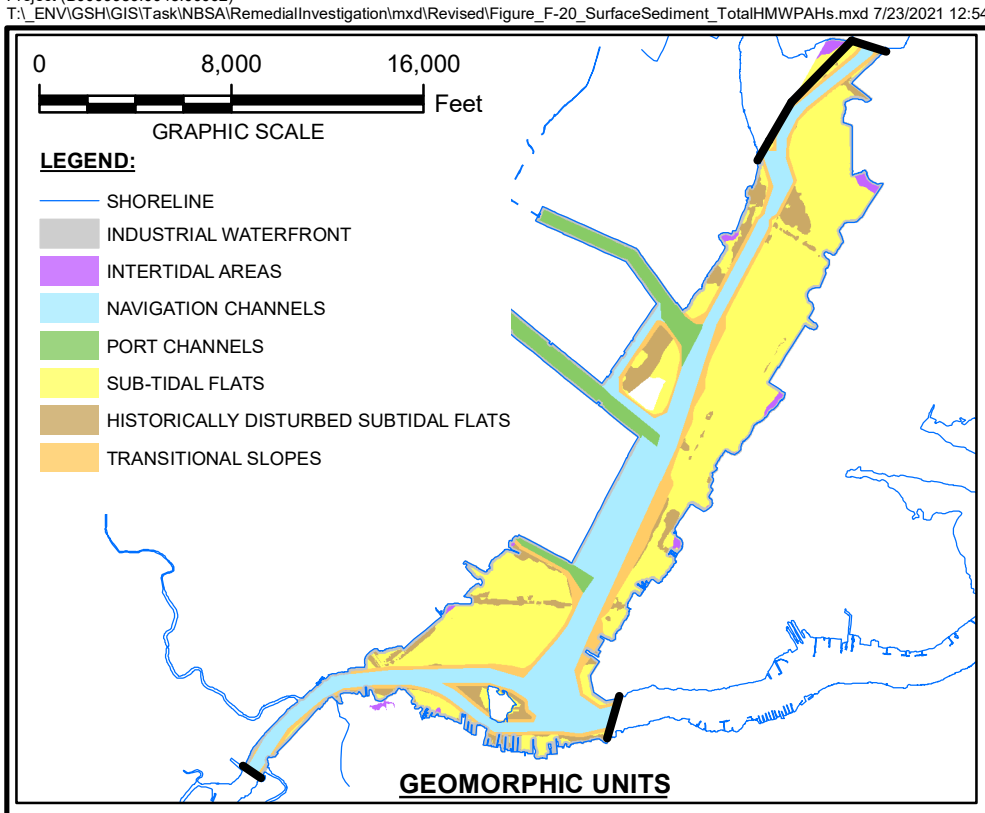
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TOTAL ALKYLATED PAHs

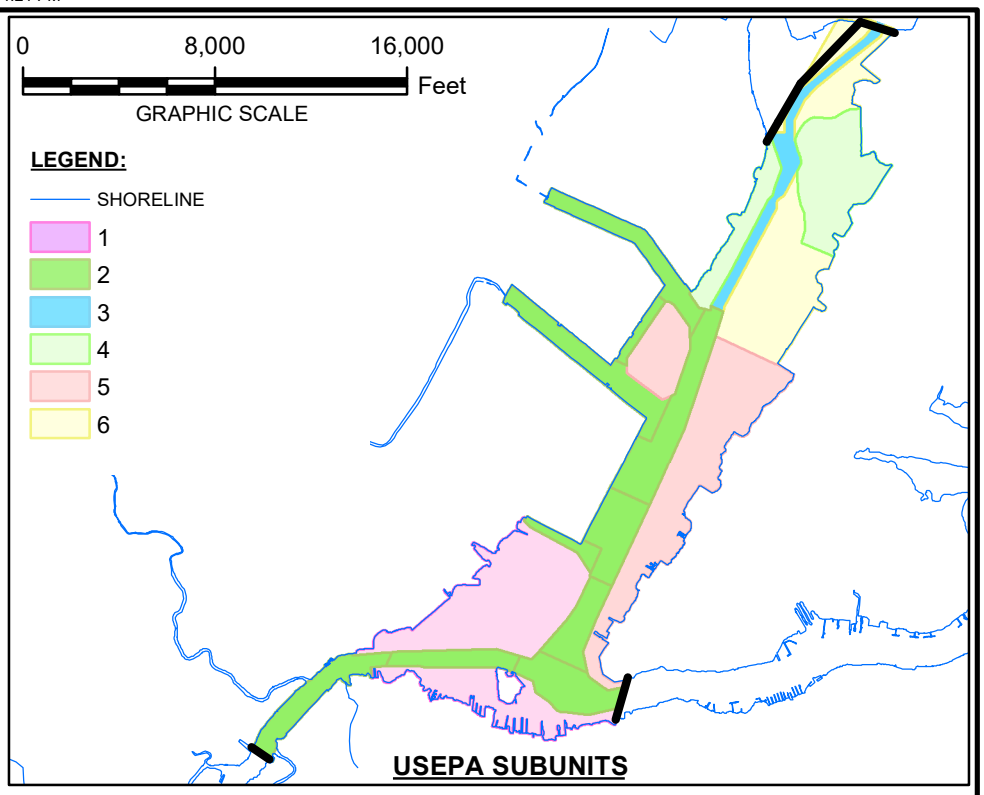
Glenn Springs Holdings, Inc.
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FIGURE
F-19

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-20_SurfaceSediment_TotalHMWPAHs.mxd 7/23/2021 12:54:21 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

TOTAL HMW PAHs (ug/kg) (SEE NOTE 3)

- ≤ 4500
- < 4500 - 7400
- < 7400 - 14,000
- < 14,000 - 27,000
- > 27,000

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

1. HORIZONTAL DATUM: NEW JERSEY STATE PLANE COORDINATE SYSTEM, NAD83.
2. SHORELINE IS DIGITIZED FROM AERIAL PHOTO DATED JULY 2002 (INTRASEARCH, ENGLEWOOD, CO).
3. RANGES PRESENTED FOR RESULTS ARE BASED ON THE 25TH, 50TH, 75TH, AND 90TH PERCENTILE OF THE SURFACE SEDIMENT DATA SET.
4. SAMPLING LOCATIONS COLLECTED DURING PHASE I/II FROM WITHIN THE NAVIGATION CHANNEL IN NEWARK BAY SOUTH AND NEWARK BAY CENTRAL MAY HAVE BEEN AFFECTED BY DREDGING ACTIVITIES CONDUCTED SINCE SAMPLE COLLECTION.
5. COMP01-COMP10 ARE COMPOSITE SAMPLES COLLECTED IN THE DREDGED PORTION OF THE NAVIGATION CHANNEL DURING THE 2016 PHASE III SAMPLING PROGRAM. A SYMBOL LOCATED CENTRALLY WITHIN EACH COMPOSITE AREA IS COLOR-CODED ACCORDING TO THE CONCENTRATION VALUES AS SHOWN IN THE LEGEND ABOVE.
6. LOCATIONS OUTSIDE THE STUDY AREA ARE SHOWN FOR CONSISTENCY BUT NOT INCLUDED IN STATISTICAL ANALYSIS.
7. GEOGRAPHIC ZONE BOUNDARIES ARE USED TO DIVIDE THE STUDY AREA INTO NORTH, CENTRAL, AND SOUTH ZONES.
8. THE NEWARK BAY STUDY AREA BOUNDARY WAS USEPA APPROVED AND UTILIZED IN THE PHASE I, II, AND III SEDIMENT INVESTIGATIONS. IN APRIL 2020, USEPA REVISED THE BOUNDARY BETWEEN OU2 AND OU3 SUCH THAT KEARNY POINT IS ENTIRELY INCLUDED IN OU2 (USEPA 2020), AS SHOWN. THE BOUNDARY MAY BE CHANGED BY USEPA FOR FUTURE INVESTIGATIONS UNDER THE RI/FS.
9. BE-7 BEARING LOCATIONS ARE DEFINED AS LOCATIONS WITH SURFACE SAMPLES ANALYZED FOR BE-7 AND RESULT CONCENTRATIONS GREATER THAN OR EQUAL TO 0.5 PICOCURIE PER GRAM (PCI/G). THESE LOCATIONS ARE CONSIDERED TO INDICATE RECENTLY DEPOSITED SEDIMENTS. ONLY PHASE I/II SAMPLES WERE ANALYZED FOR BE-7.
10. THE CONRAIL BRIDGE REMNANTS, BAYONNE BRIDGE, AND GOETHALS BRIDGE ARE CONVENIENT LANDMARKS, BUT THEY DO NOT CONSTITUTE ADMINISTRATIVE BOUNDARIES.
11. REFERENCE:
    A. USEPA. 2020. DIAMOND ALKALI SUPERFUND SITE - BOUNDARY BETWEEN OPERABLE UNIT 2 AND OPERABLE UNIT 3. MEMORANDUM FROM MICHAEL SIVAK, BRANCH CHIEF OF PASSAIC, HACKENSACK, AND NEWARK BAY REMEDIATION BRANCH TO FILE. APRIL 6.

HACKENSACK RIVER
PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
COMP04
NEWARK BAY CENTRAL
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
COMP09
SHOOTERS ISLAND
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000 Feet
GRAPHIC SCALE

DIAMOND ALKALI SUPERFUND SITE

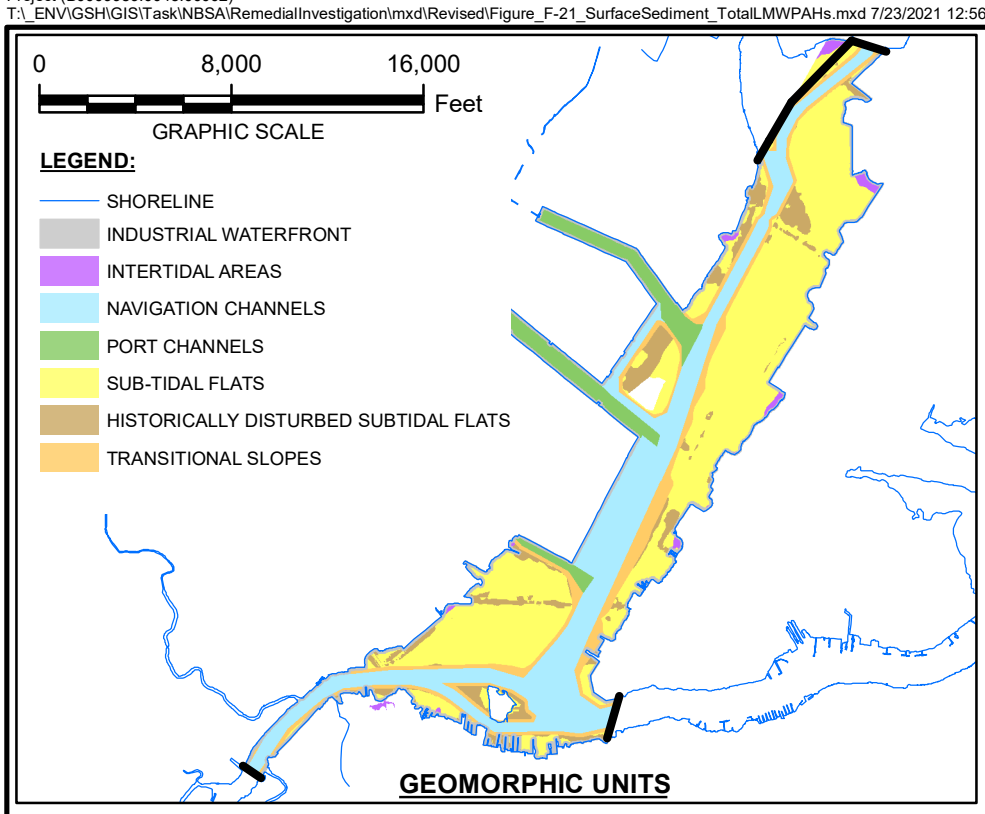
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TOTAL HMW PAHs

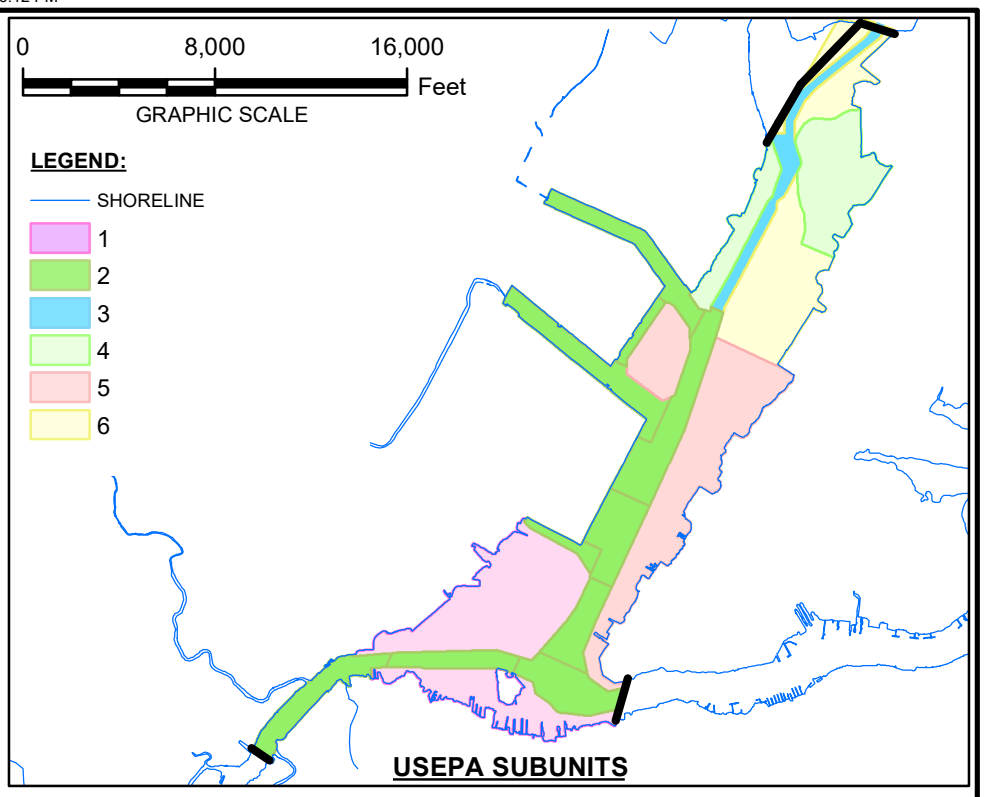
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-20

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-21_SurfaceSediment_TotalLMWPAHs.mxd 7/23/2021 12:56:12 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
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- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

TOTAL LMW PAHs (ug/kg) (SEE NOTE 3)

- ≤ 540
- < 540 - 900
- < 900 - 1800
- < 1800 - 3100
- > 3100

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
NEWARK BAY CENTRAL
COMP04
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
SHOOTERS ISLAND
COMP09
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000
Feet
GRAPHIC SCALE

DIAMOND ALKALI SUPERFUND SITE

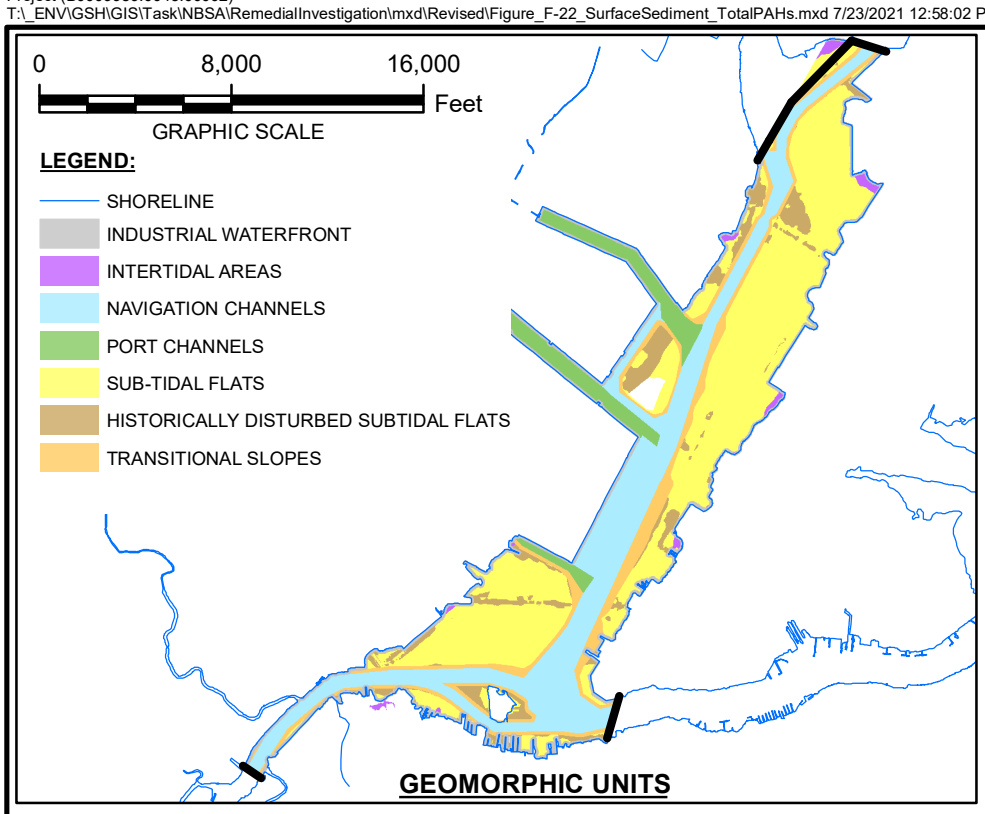
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TOTAL LMW PAHs

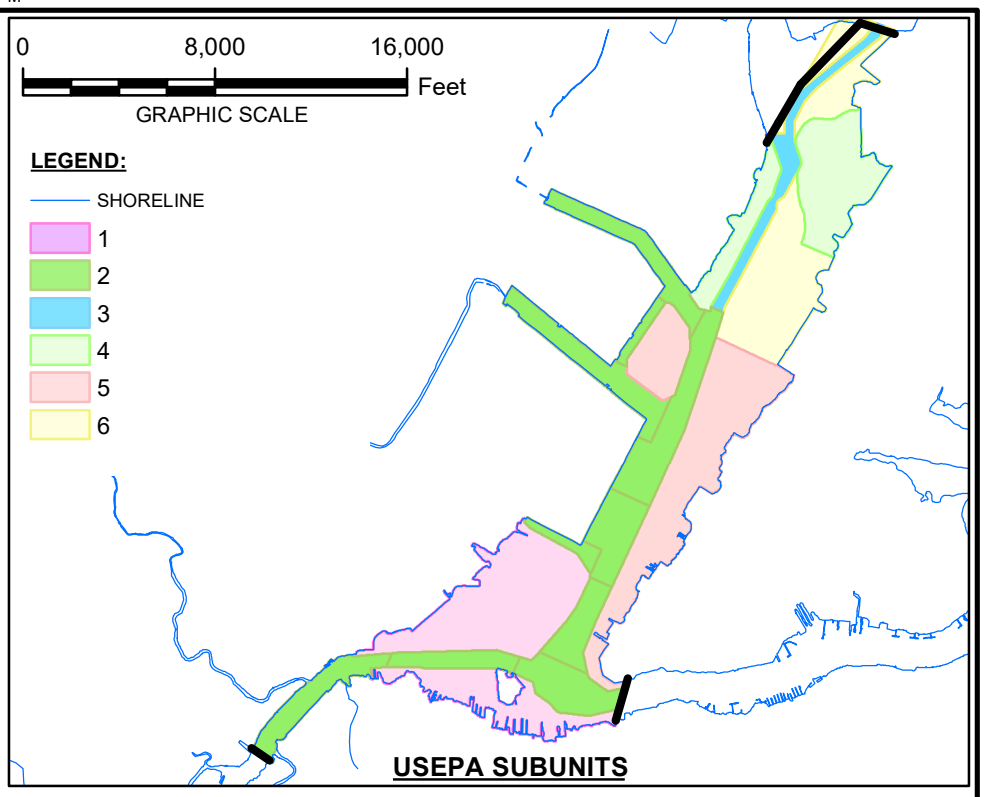
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-21

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-22_SurfaceSediment_TotalPAHs.mxd 7/23/2021 12:58:02 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
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- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
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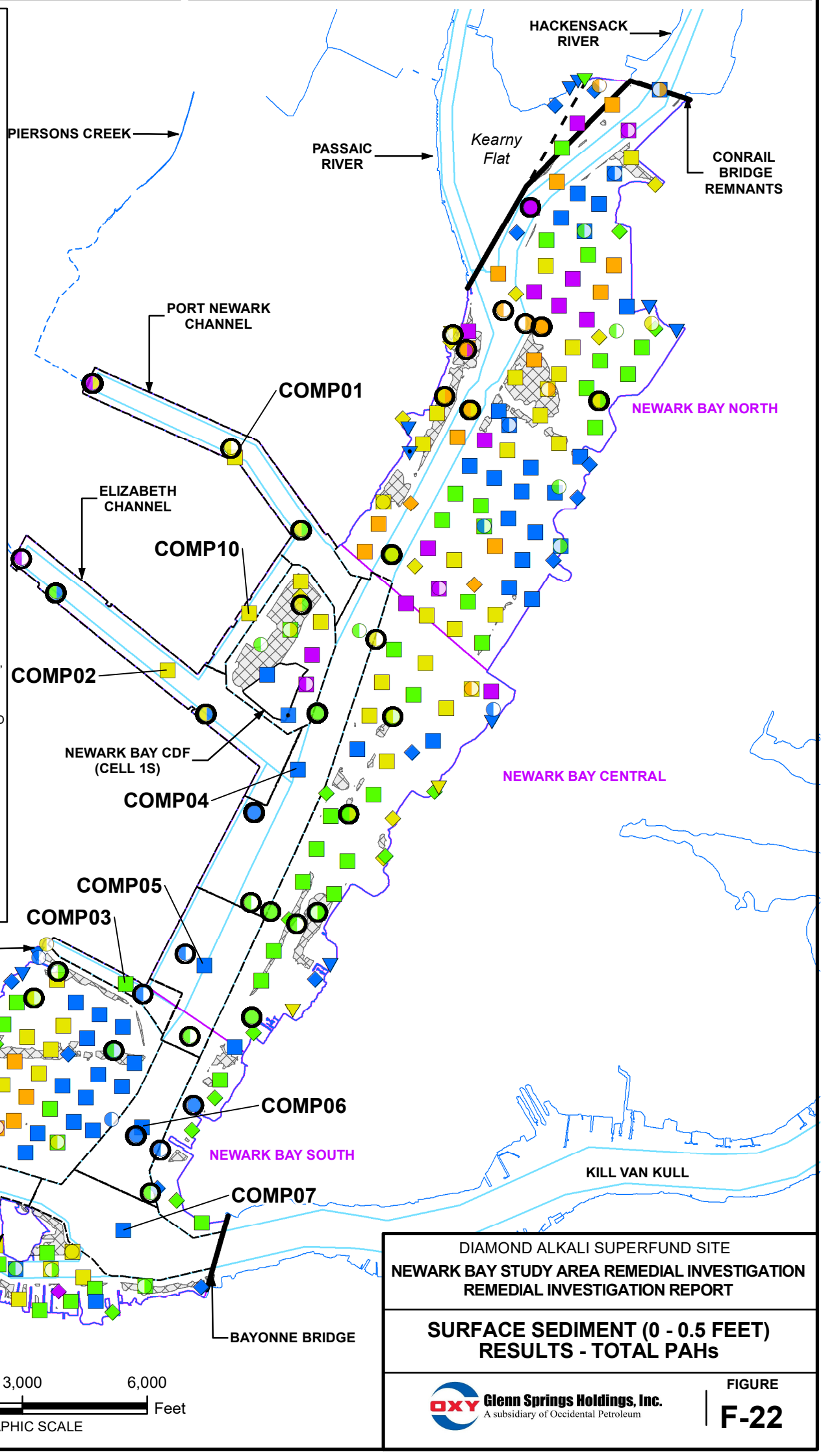
TOTAL PAH (ug/kg) (SEE NOTE 3)

- ≤ 5100
- < 5100 - 8400
- < 8400 - 16,000
- < 16,000 - 30,000
- > 30,000

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
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- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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DIAMOND ALKALI SUPERFUND SITE

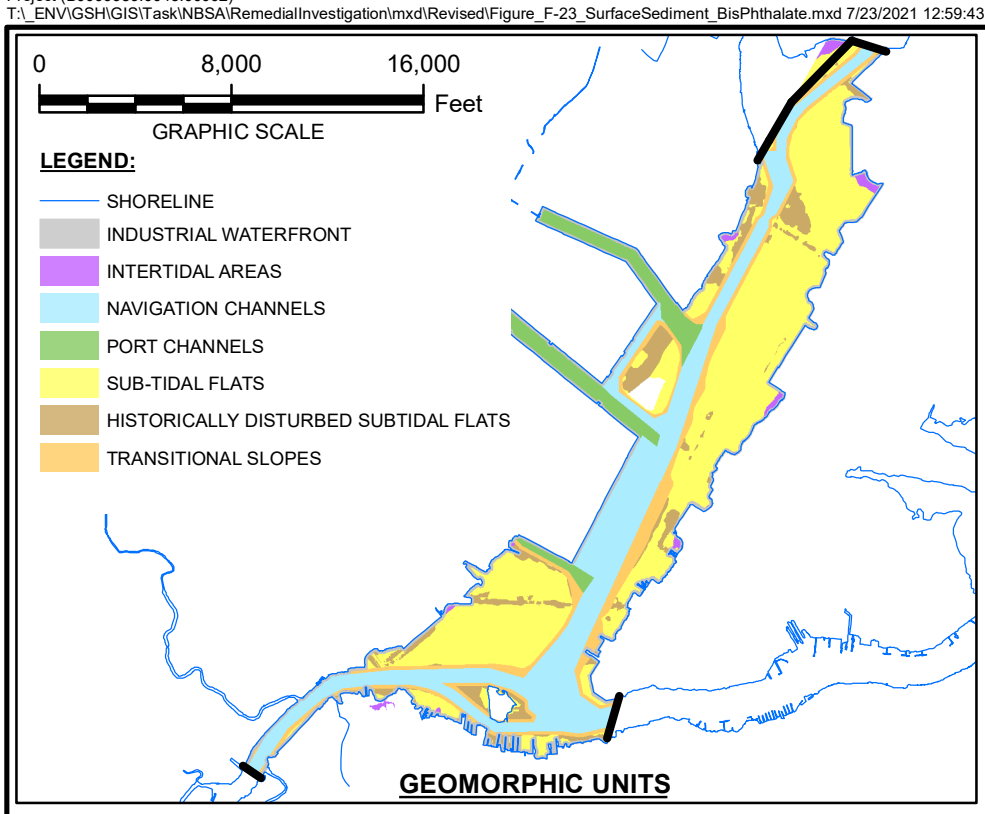
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TOTAL PAHs

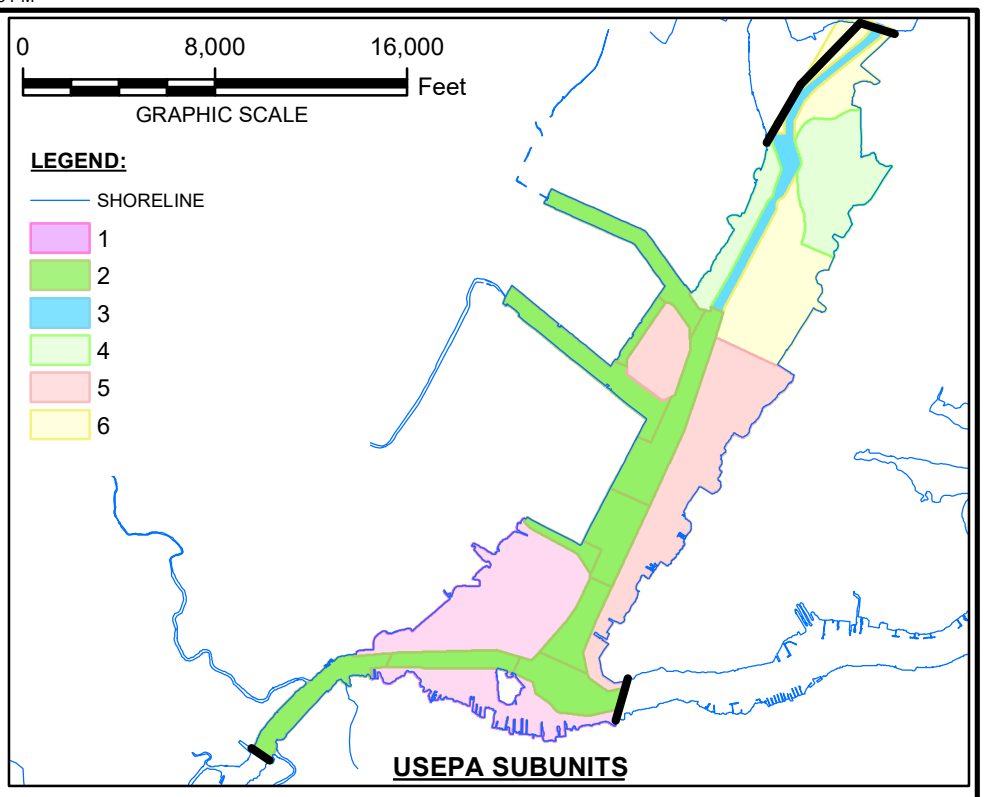
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-22

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-23_SurfaceSediment_BisPhthalate.mxd 7/23/2021 12:59:43 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
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- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
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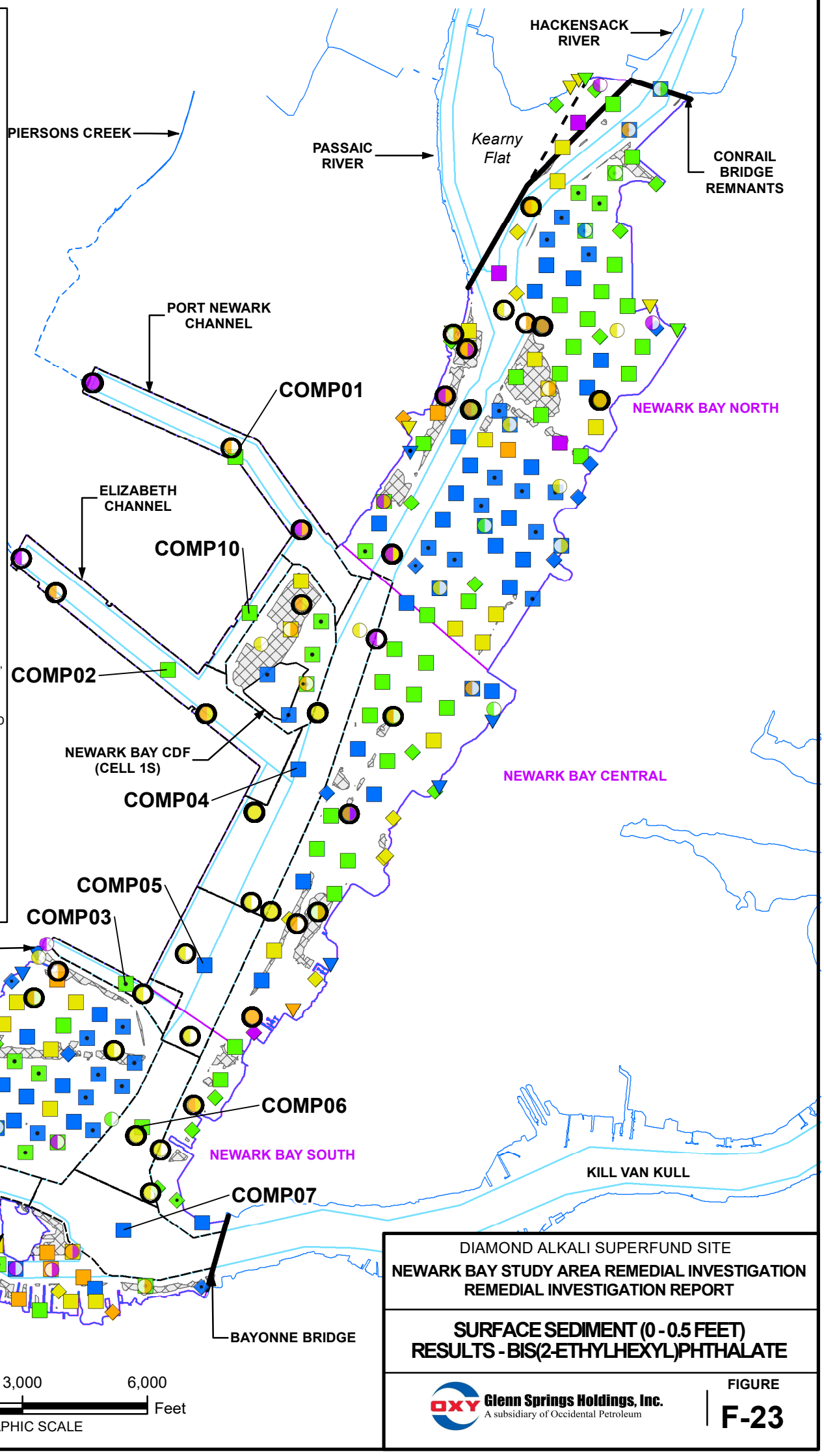
BIS(2-ETHYLHEXYL)PHTHALATE (ug/kg) (SEE NOTE 3)

- ≤ 280
- < 280 - 730
- < 730 - 2200
- < 2200 - 5700
- > 5700

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
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NOTES:

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DIAMOND ALKALI SUPERFUND SITE

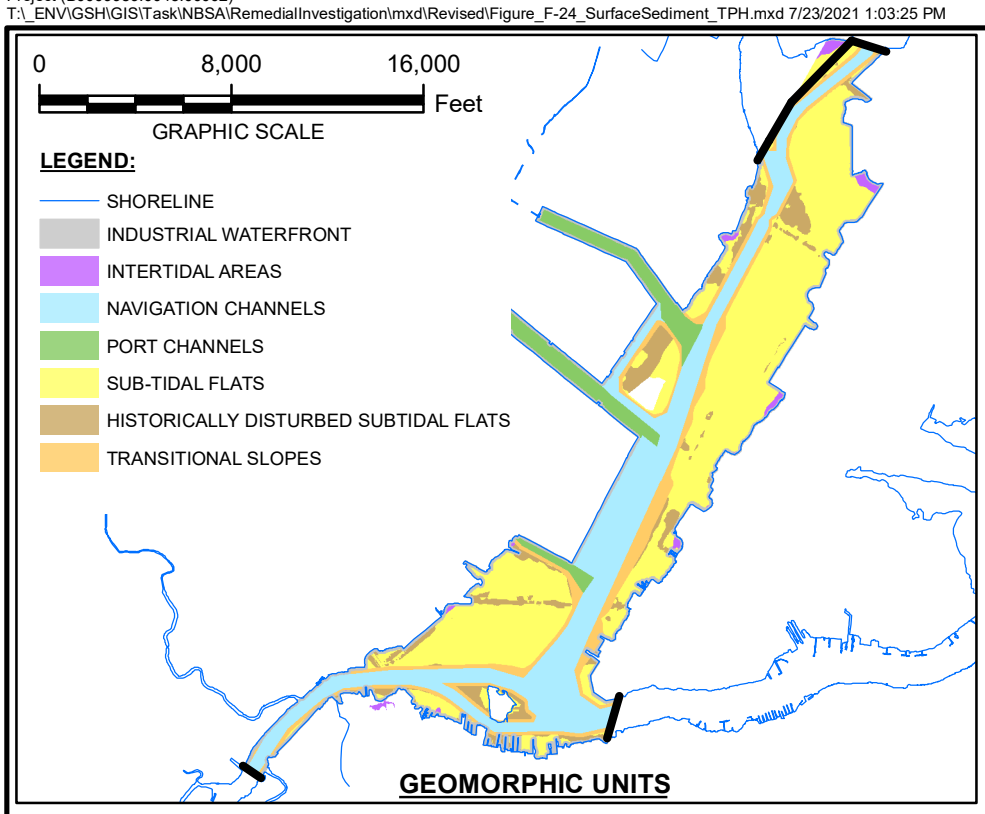
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - BIS(2-ETHYLHEXYL)PHTHALATE

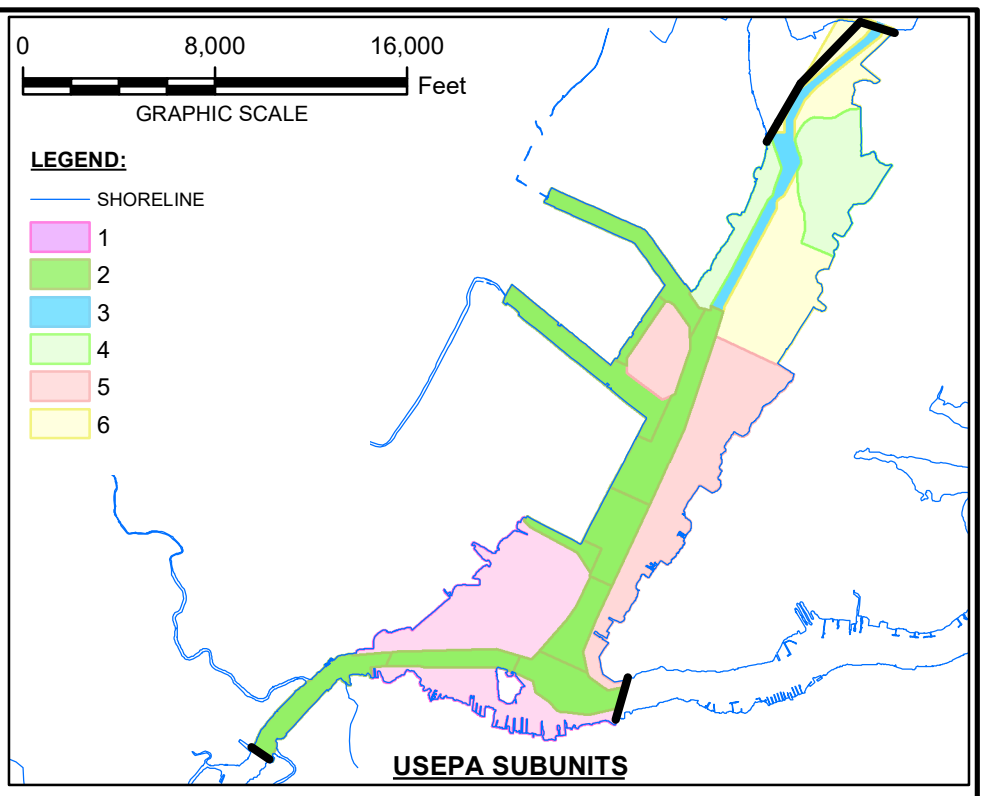
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-23

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-24_SurfaceSediment_TPH.mxd 7/23/2021 1:03:25 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
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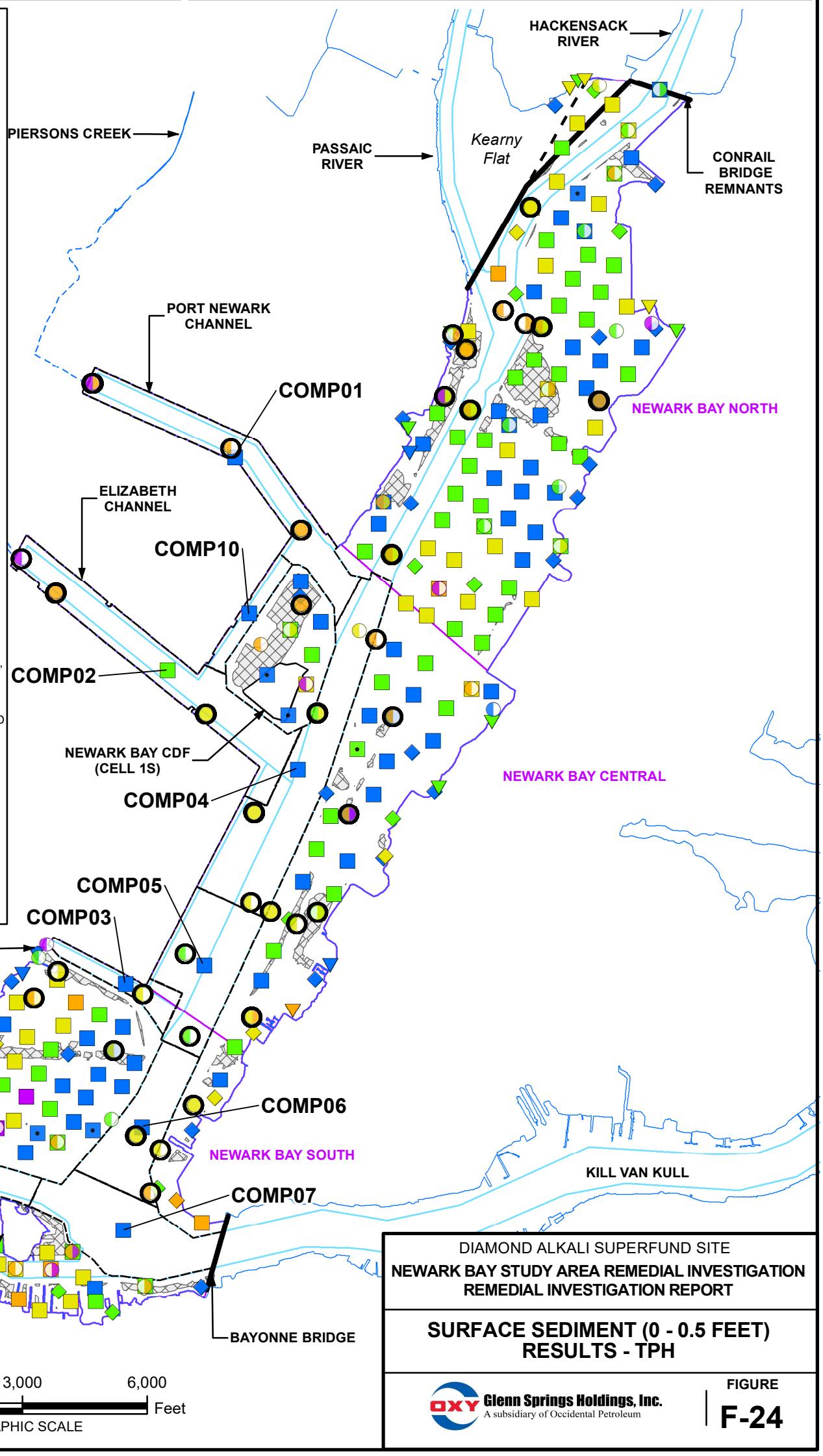
TPH (mg/kg) (SEE NOTE 3)

- ≤ 129
- < 129 - 316
- < 316 - 780
- < 780 - 1600
- > 1600

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
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- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
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- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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    A. USEPA. 2020. DIAMOND ALKALI SUPERFUND SITE - BOUNDARY BETWEEN OPERABLE UNIT 2 AND OPERABLE UNIT 3. MEMORANDUM FROM MICHAEL SIVAK, BRANCH CHIEF OF PASSAIC, HACKENSACK, AND NEWARK BAY REMEDIATION BRANCH TO FILE. APRIL 6.



DIAMOND ALKALI SUPERFUND SITE

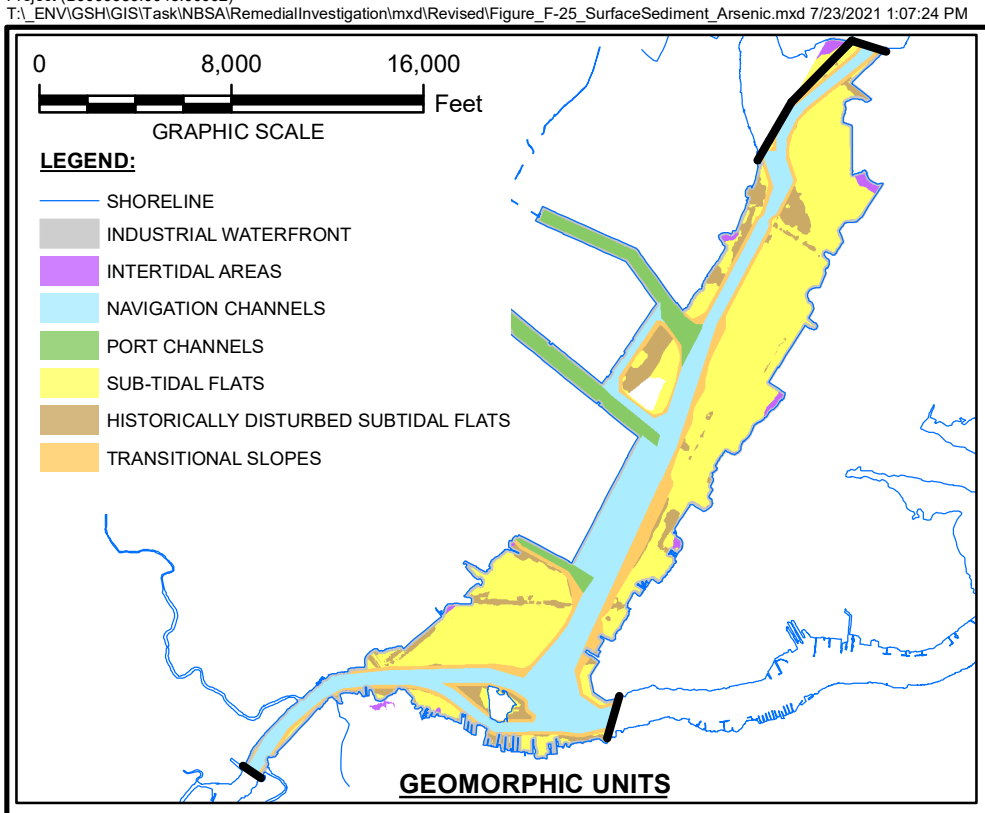
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - TPH

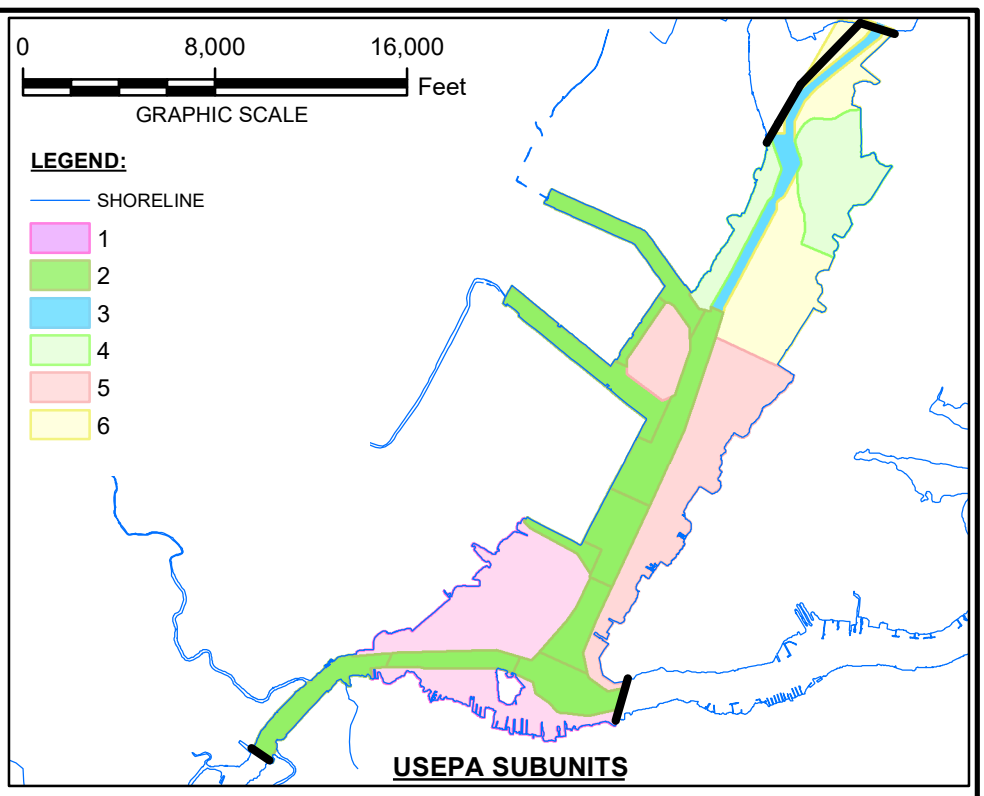
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-24

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-25_SurfaceSediment_Arsenic.mxd 7/23/2021 1:07:24 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

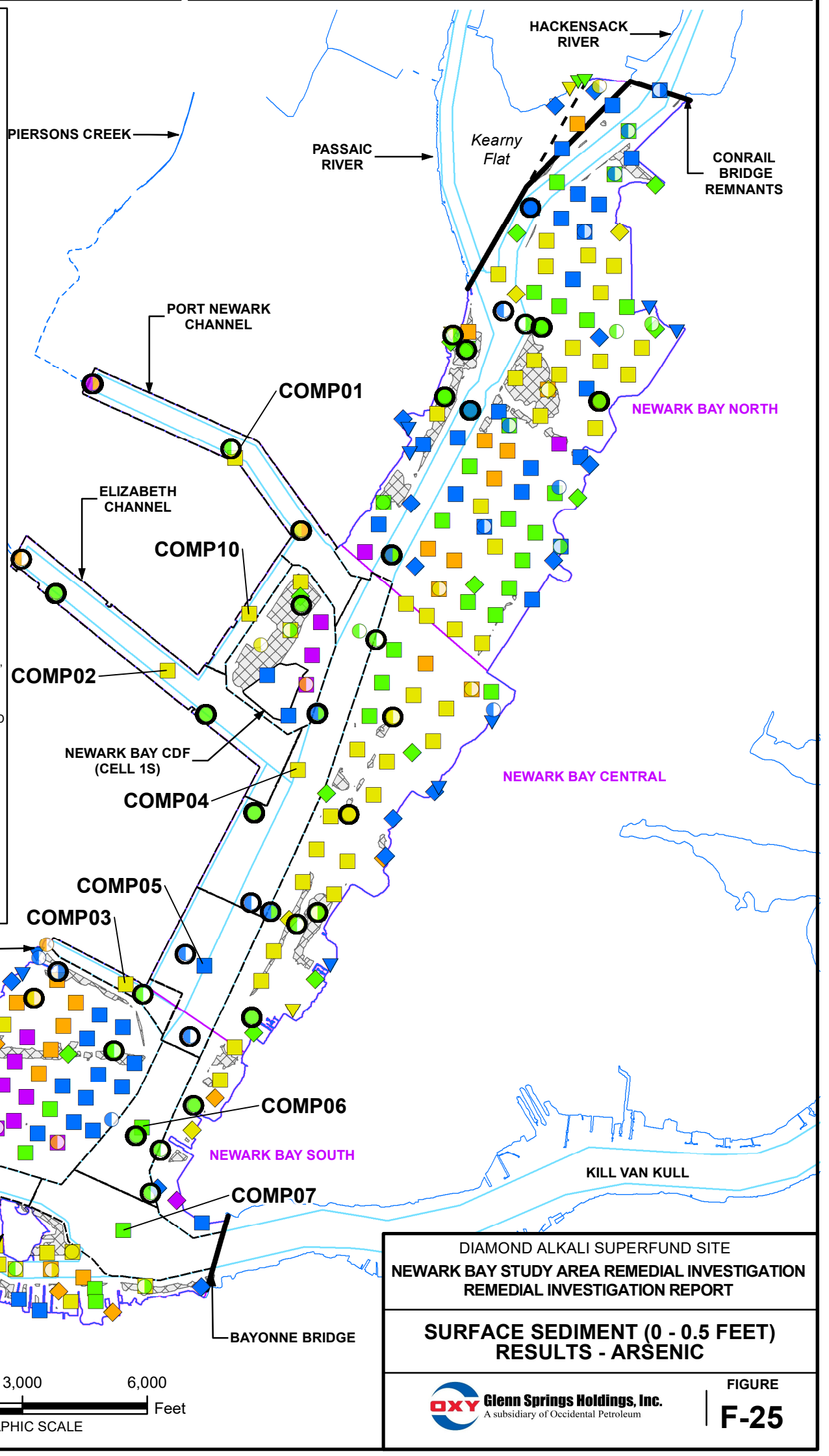
ARSENIC (mg/kg) (SEE NOTE 3)

- ≤ 9.32
- > 9.32 - 12.6
- > 12.6 - 17.7
- > 17.7 - 34.2
- > 34.2

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

1. HORIZONTAL DATUM: NEW JERSEY STATE PLANE COORDINATE SYSTEM, NAD83.
2. SHORELINE IS DIGITIZED FROM AERIAL PHOTO DATED JULY 2002 (INTRASEARCH, ENGLEWOOD, CO).
3. RANGES PRESENTED FOR RESULTS ARE BASED ON THE 25TH, 50TH, 75TH, AND 90TH PERCENTILE OF THE SURFACE SEDIMENT DATA SET.
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9. BE-7 BEARING LOCATIONS ARE DEFINED AS LOCATIONS WITH SURFACE SAMPLES ANALYZED FOR BE-7 AND RESULT CONCENTRATIONS GREATER THAN OR EQUAL TO 0.5 PICOCURIE PER GRAM (PCI/G). THESE LOCATIONS ARE CONSIDERED TO INDICATE RECENTLY DEPOSITED SEDIMENTS. ONLY PHASE I/II SAMPLES WERE ANALYZED FOR BE-7.
10. THE CONRAIL BRIDGE REMNANTS, BAYONNE BRIDGE, AND GOETHALS BRIDGE ARE CONVENIENT LANDMARKS, BUT THEY DO NOT CONSTITUTE ADMINISTRATIVE BOUNDARIES.
11. REFERENCE:
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DIAMOND ALKALI SUPERFUND SITE

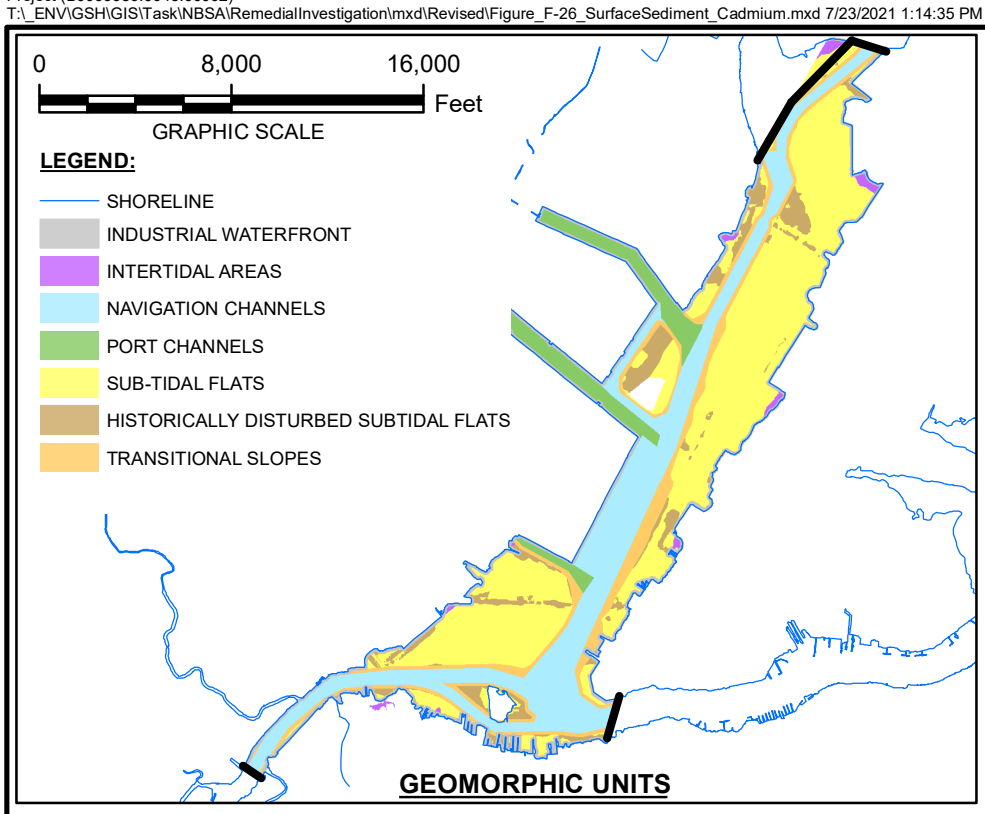
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - ARSENIC

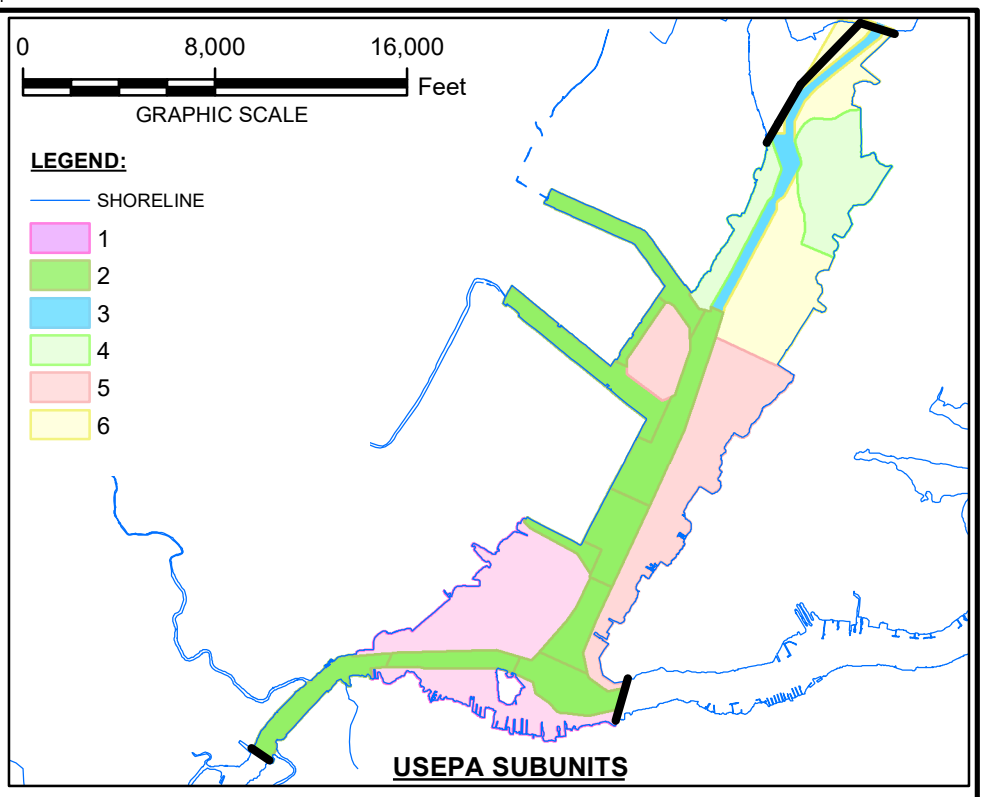
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-25

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-26_SurfaceSediment_Cadmium.mxd 7/23/2021 1:14:35 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

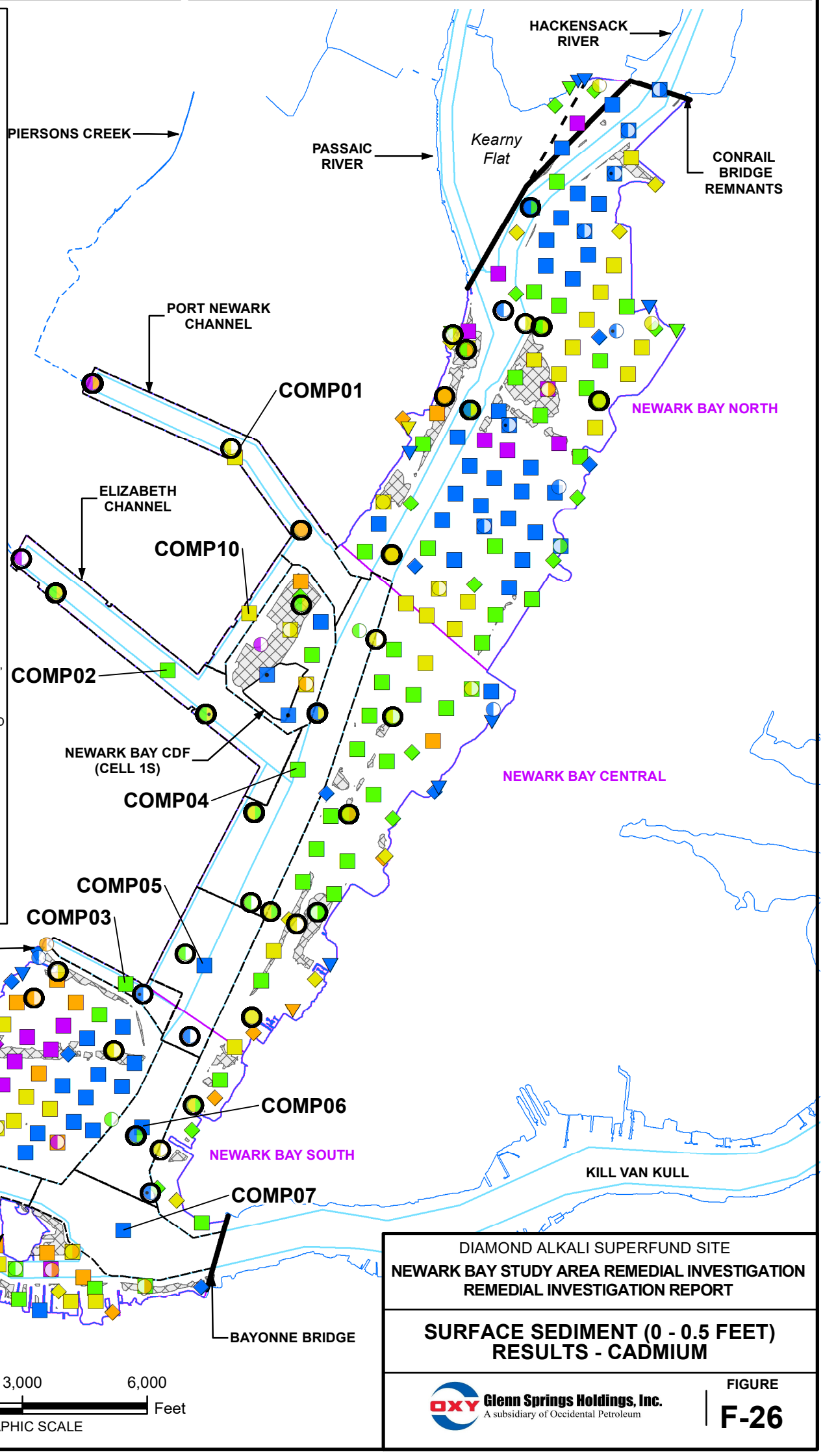
CADMIUM (mg/kg) (SEE NOTE 3)

- ≤ 0.582
- > 0.582- 1.09
- > 1.09 - 2.10
- > 2.10 - 5.26
- > 5.26

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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DIAMOND ALKALI SUPERFUND SITE

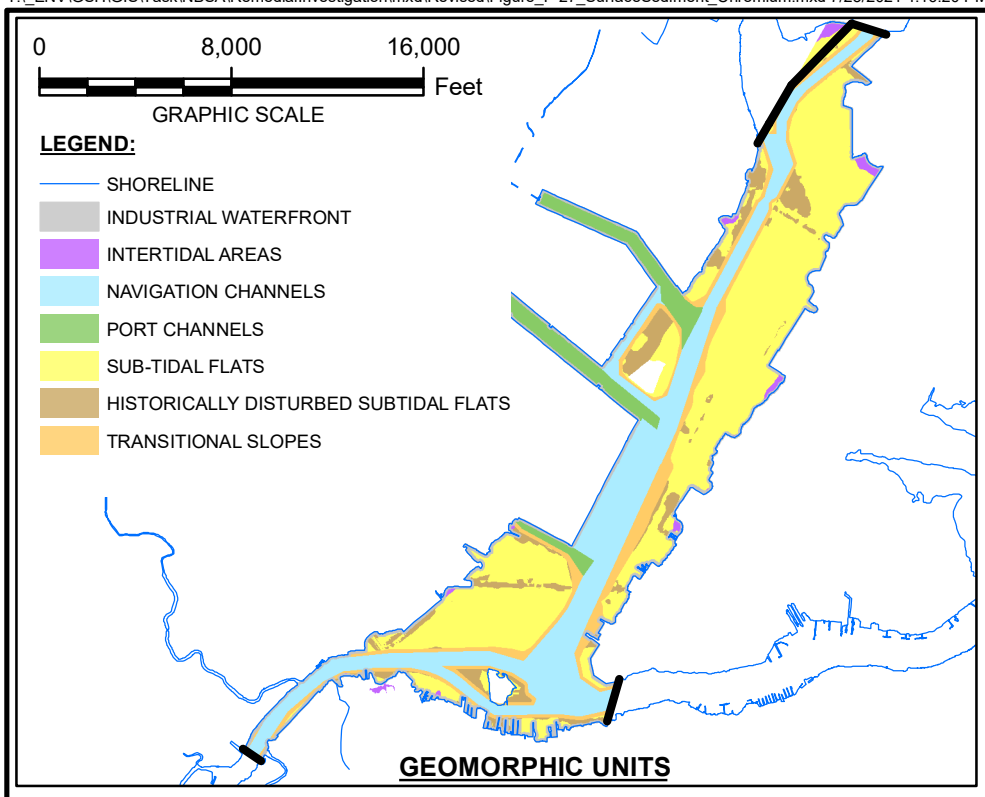
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - CADMIUM

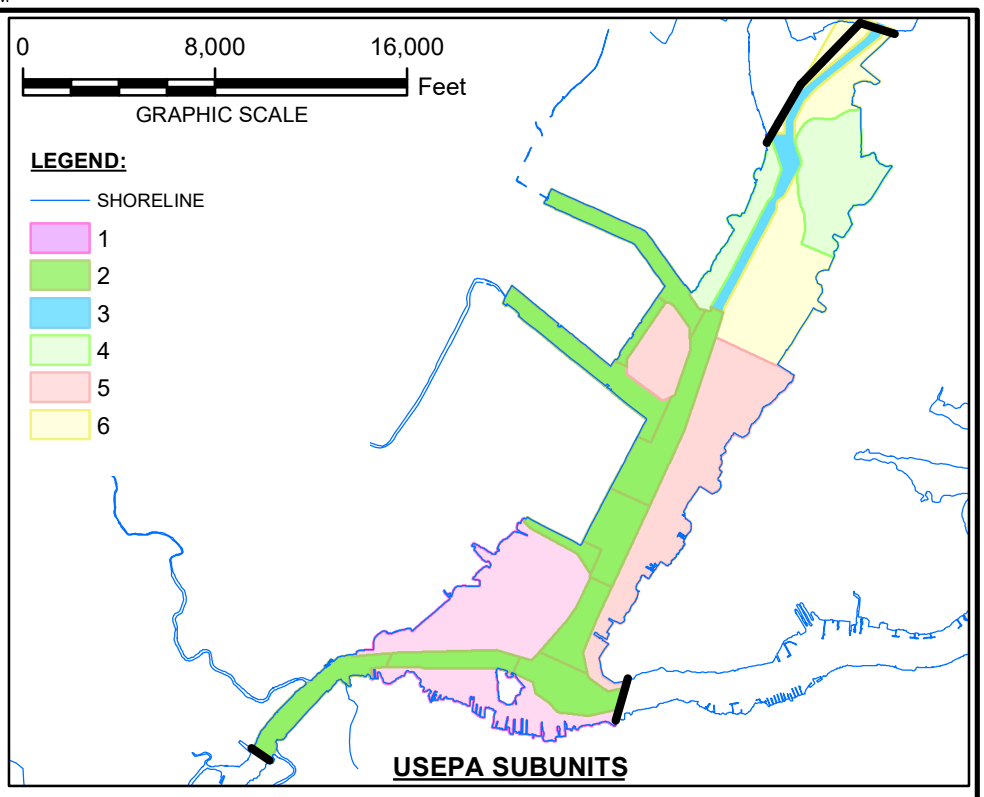
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-26

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-27_SurfaceSediment_Chromium.mxd 7/23/2021 1:16:20 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

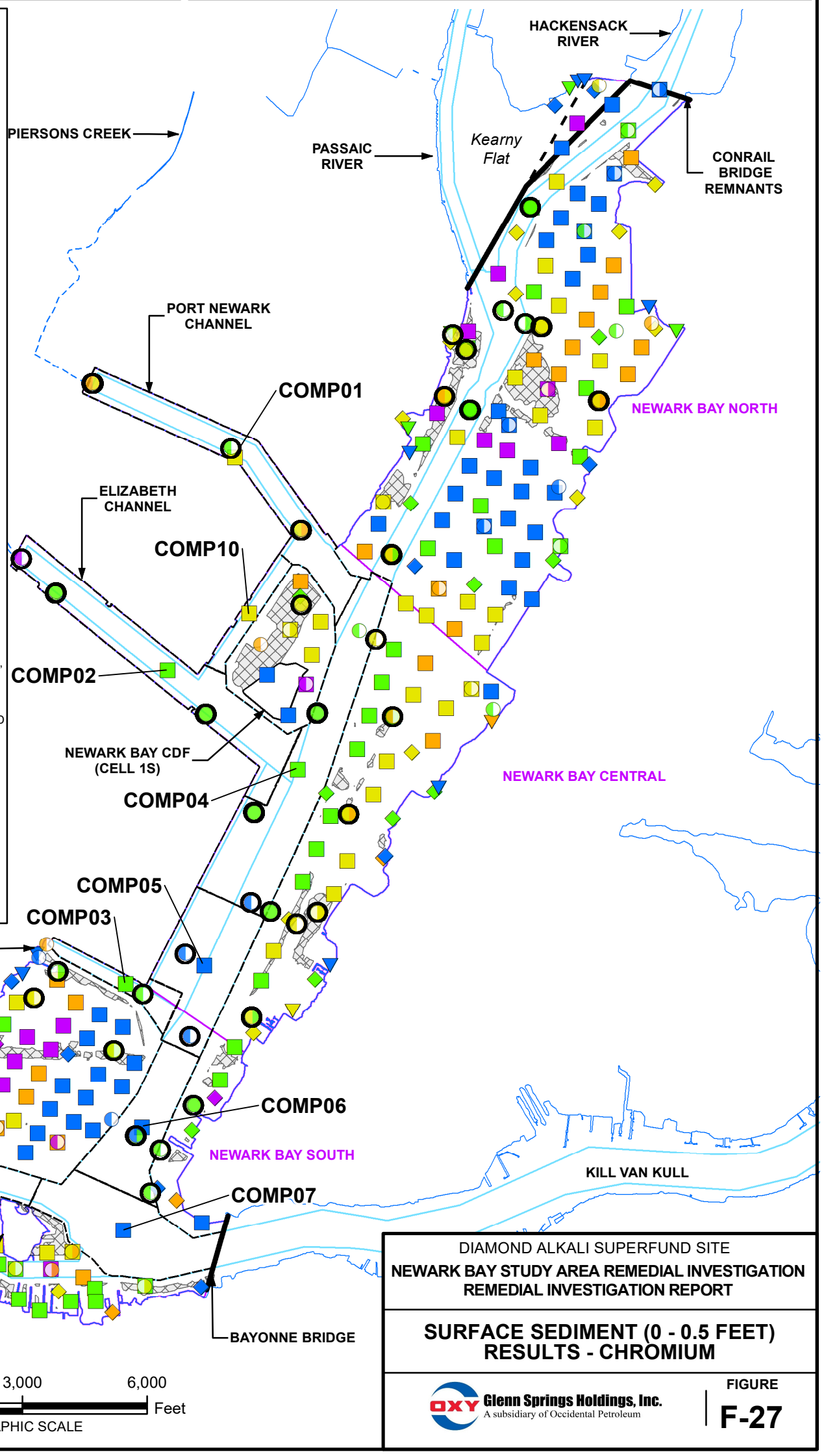
CHROMIUM (mg/kg) (SEE NOTE 3)

- ≤ 62.4
- < 62.4 - 97.8
- < 97.8 - 140
- < 140 - 217
- > 217

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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DIAMOND ALKALI SUPERFUND SITE

NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - CHROMIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-27

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-28_SurfaceSediment_Copper.mxd 7/23/2021 1:18:04 PM

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- INDUSTRIAL WATERFRONT
- INTERTIDAL AREAS
- NAVIGATION CHANNELS
- PORT CHANNELS
- SUB-TIDAL FLATS
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- TRANSITIONAL SLOPES

GEOMORPHIC UNITS

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- 1
- 2
- 3
- 4
- 5
- 6

USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

COPPER (mg/kg) (SEE NOTE 3)

- ≤ 64.5
- < 64.5 - 105
- < 105 - 189
- < 189 - 332
- > 332

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
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- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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HACKENSACK RIVER
PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
NEWARK BAY CENTRAL
COMP04
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
COMP09
SHOOTERS ISLAND
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000 Feet
GRAPHIC SCALE

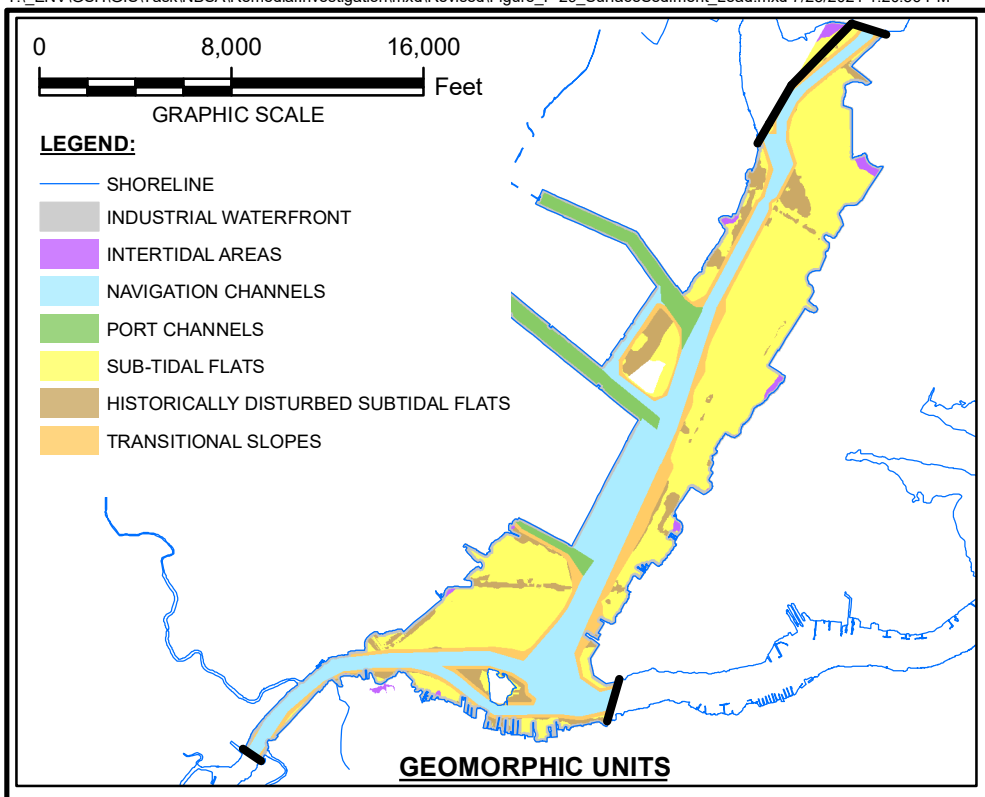
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - COPPER

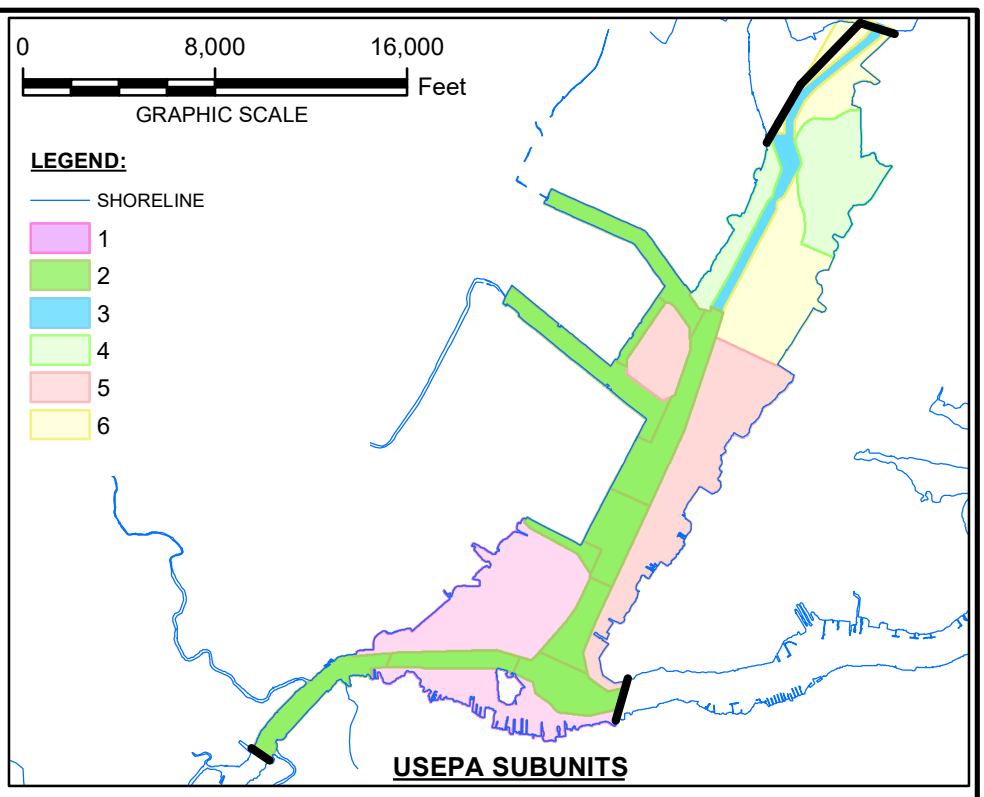
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-28

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-29_SurfaceSediment_Lead.mxd 7/23/2021 1:20:56 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
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- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

LEAD (mg/kg) (SEE NOTE 3)

- ≤ 70.7
- < 70.7 - 114
- < 114 - 193
- < 193 - 310
- > 310

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
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DIAMOND ALKALI SUPERFUND SITE

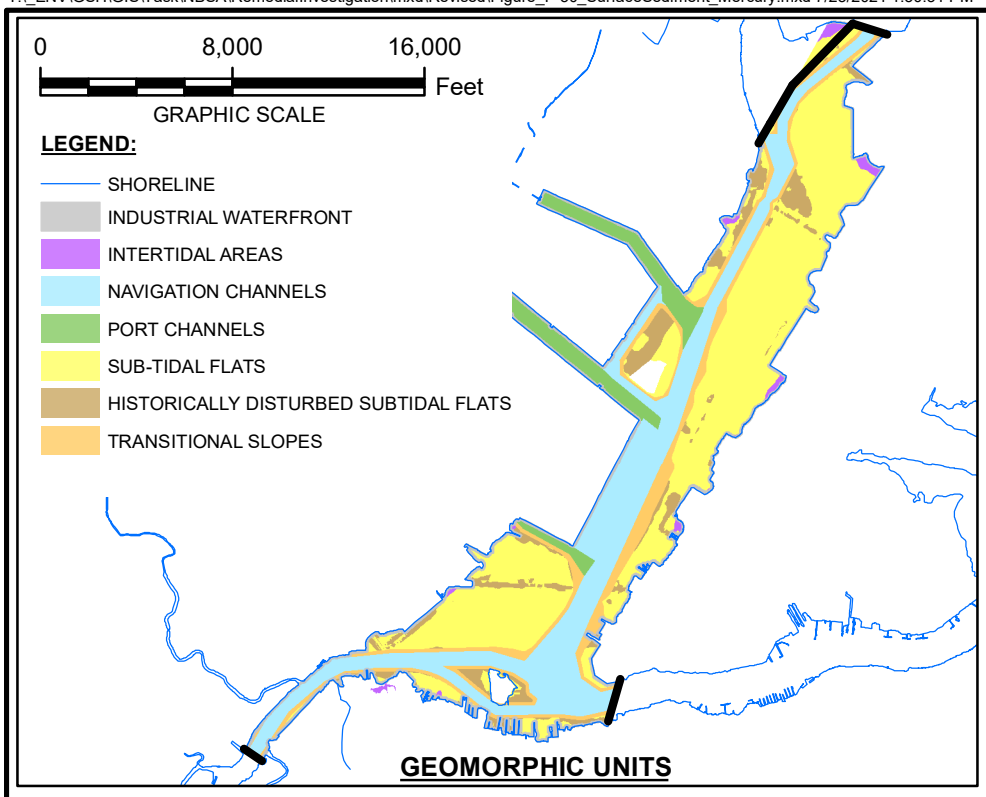
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - LEAD

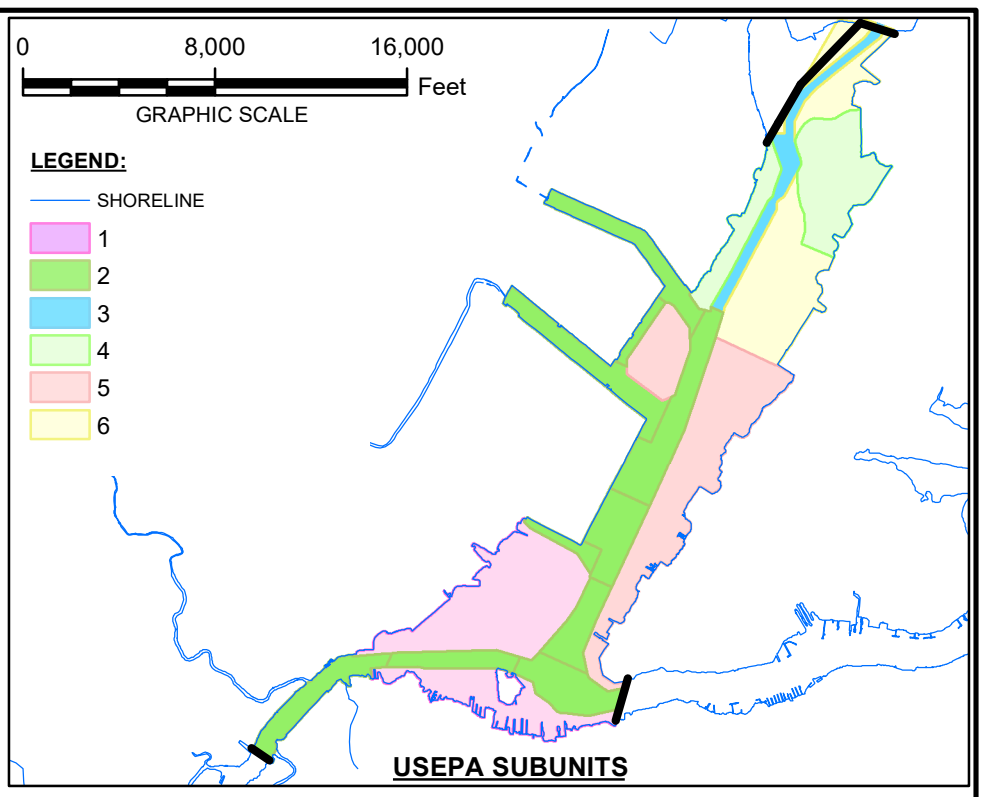
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-29

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-30_SurfaceSediment_Mercury.mxd 7/23/2021 1:30:31 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

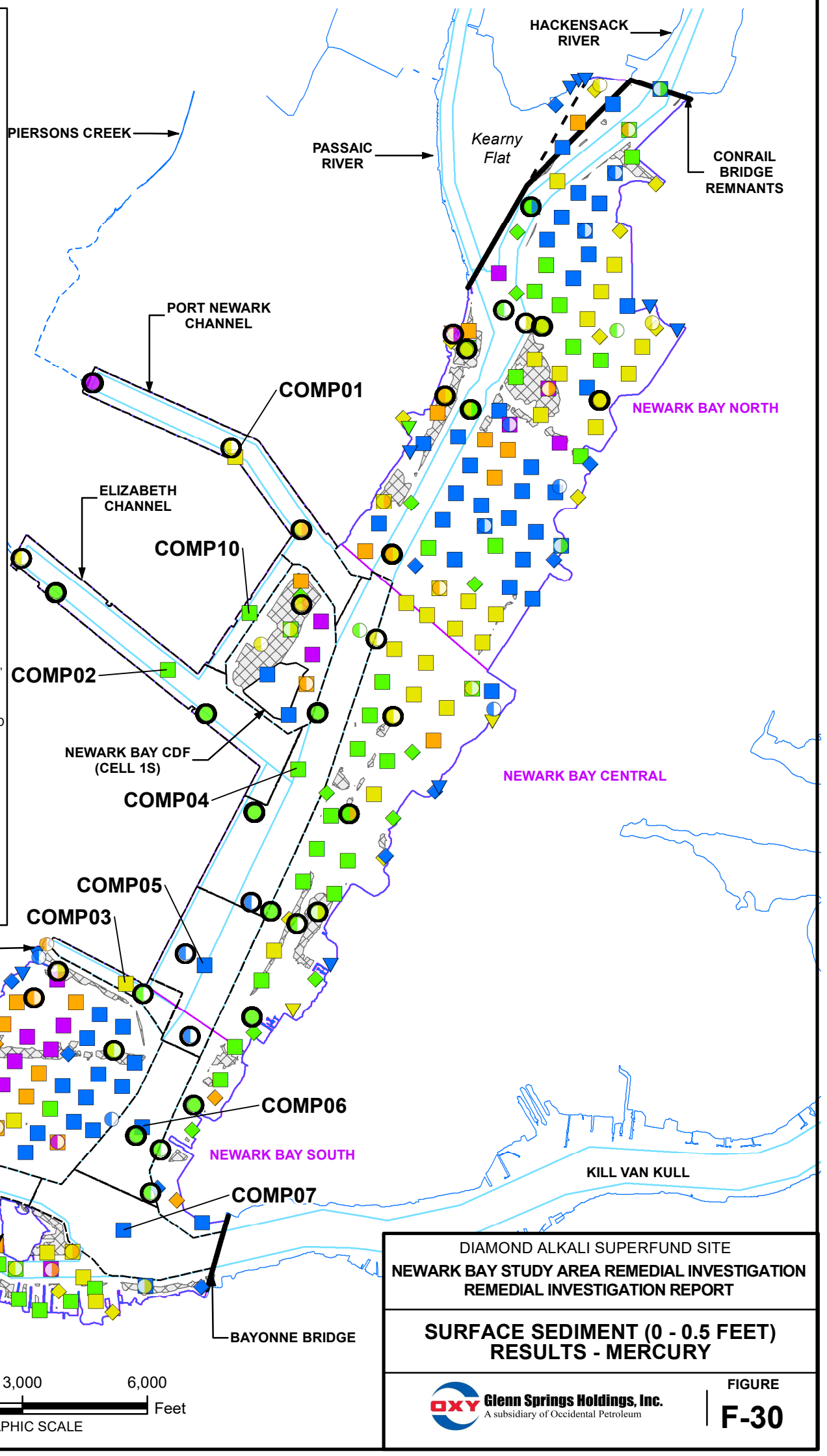
MERCURY (ng/kg) (SEE NOTE 3)

- ≤ 881
- < 881 - 1580
- < 1580 - 2970
- < 2970 - 5730
- > 5730

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

1. HORIZONTAL DATUM: NEW JERSEY STATE PLANE COORDINATE SYSTEM, NAD83.
2. SHORELINE IS DIGITIZED FROM AERIAL PHOTO DATED JULY 2002 (INTRASEARCH, ENGLEWOOD, CO).
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DIAMOND ALKALI SUPERFUND SITE

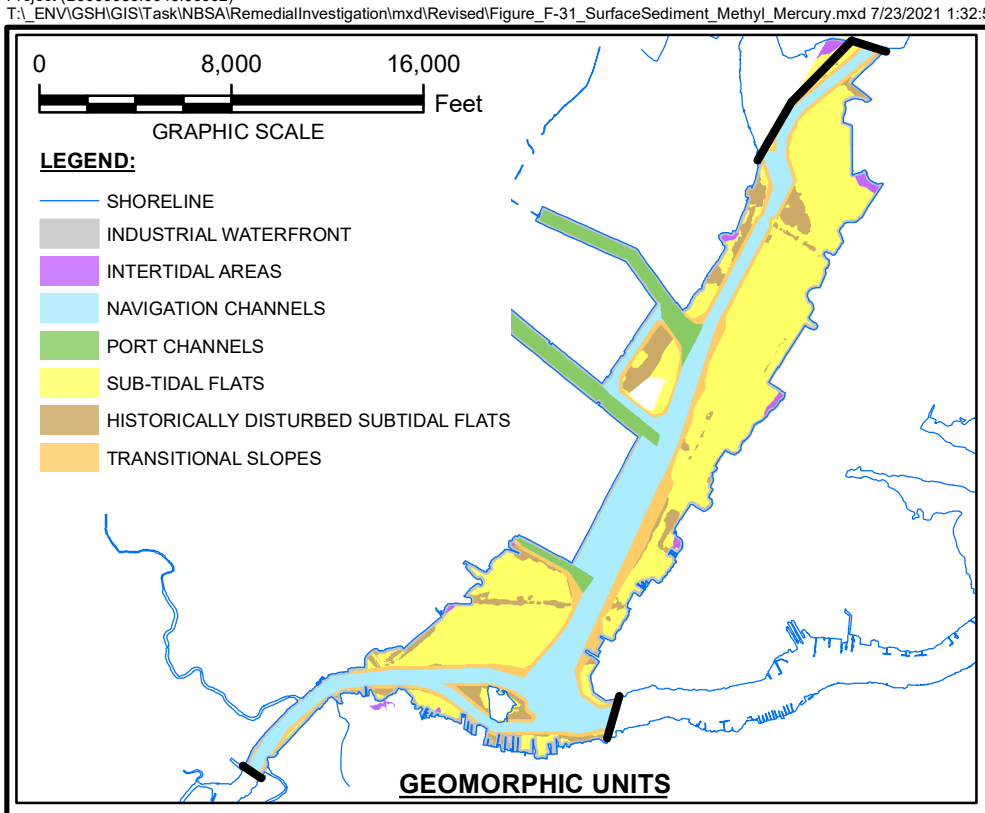
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - MERCURY

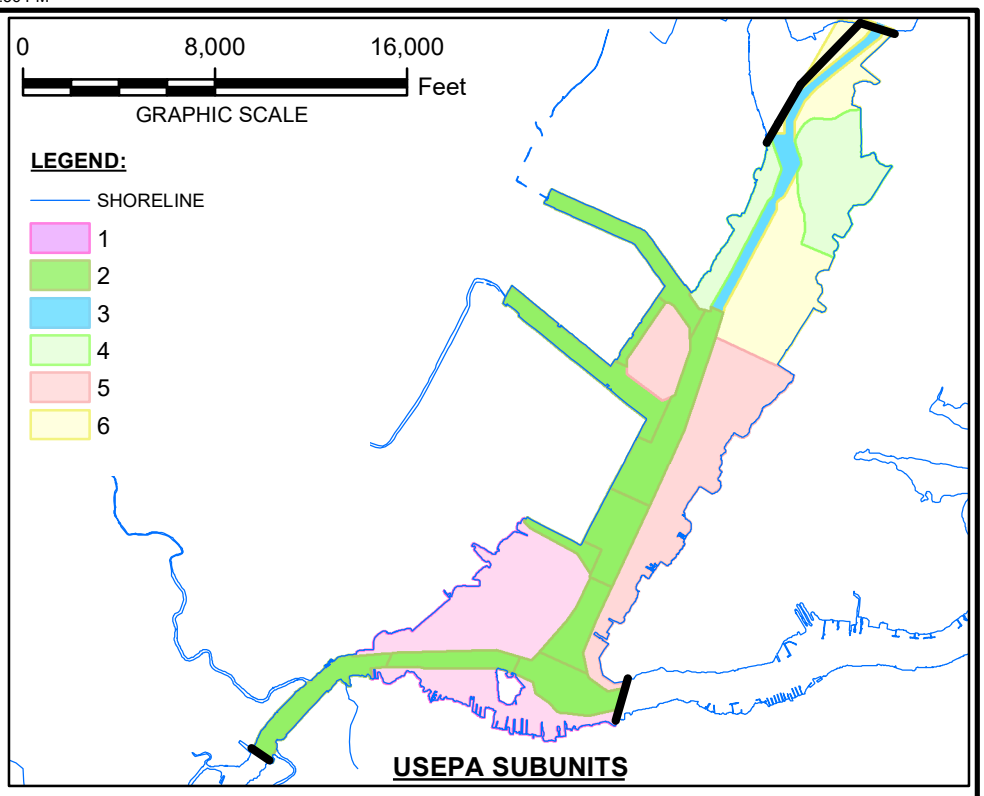
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-30

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-31_SurfaceSediment_Methyl_Mercury.mxd 7/23/2021 1:32:56 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
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- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

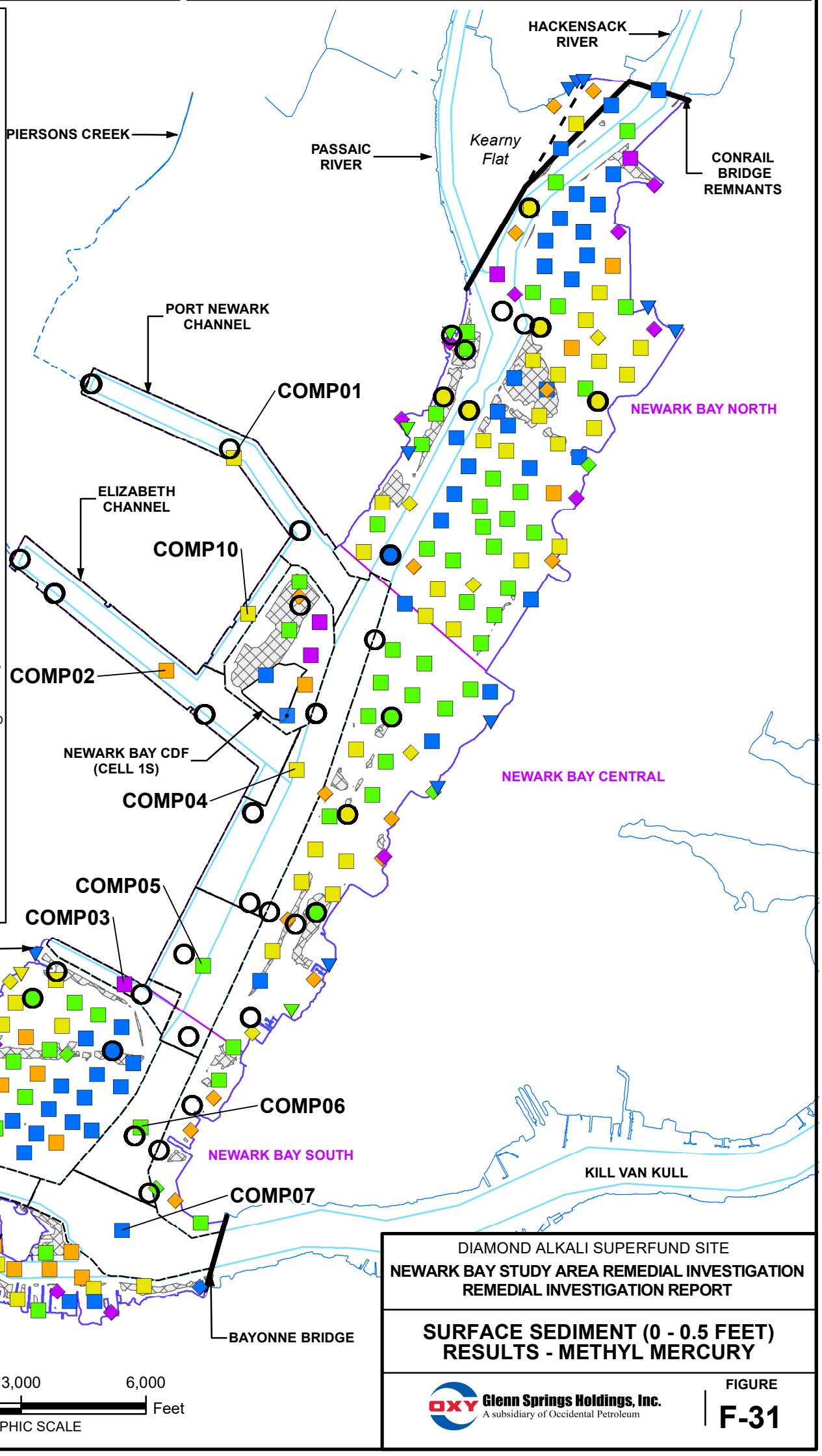
METHYL MERCURY (mg/kg) (SEE NOTE 3)

- ≤ 0.000463
- < 0.000463 - 0.000833
- < 0.000833 - 0.0014
- < 0.0014 - 0.00197
- > 0.00197

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

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DIAMOND ALKALI SUPERFUND SITE

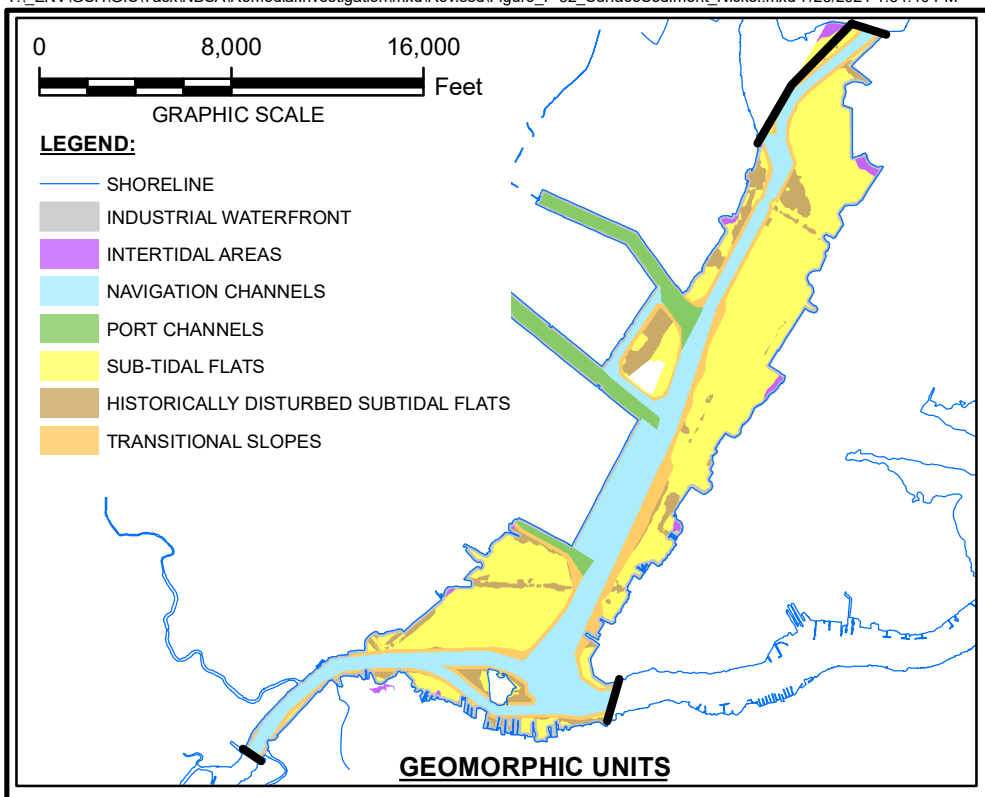
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - METHYL MERCURY

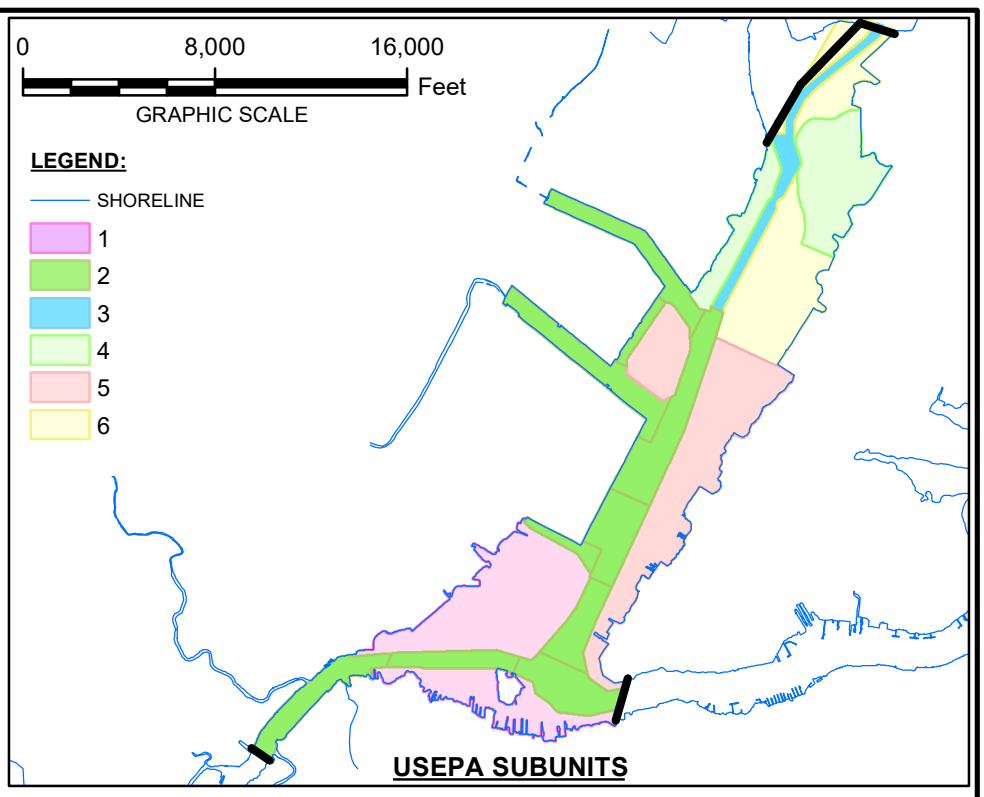
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-31

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-32_SurfaceSediment_Nickel.mxd 7/23/2021 1:34:40 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
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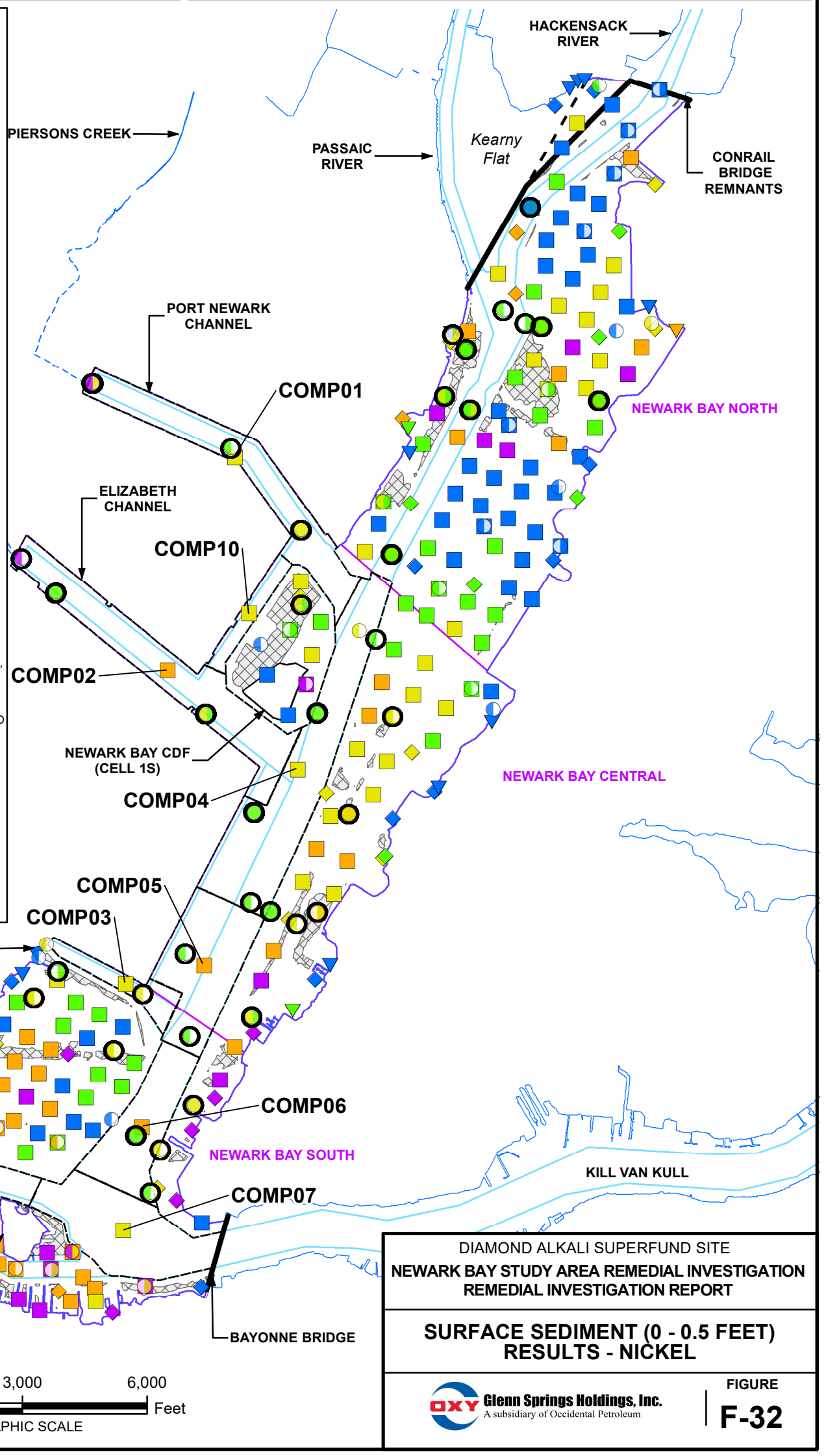
NICKEL (mg/kg) (SEE NOTE 3)

- ≤ 24.9
- < 24.9 - 36.4
- < 36.4 - 47.3
- < 47.3 - 61.4
- > 61.4

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

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DIAMOND ALKALI SUPERFUND SITE

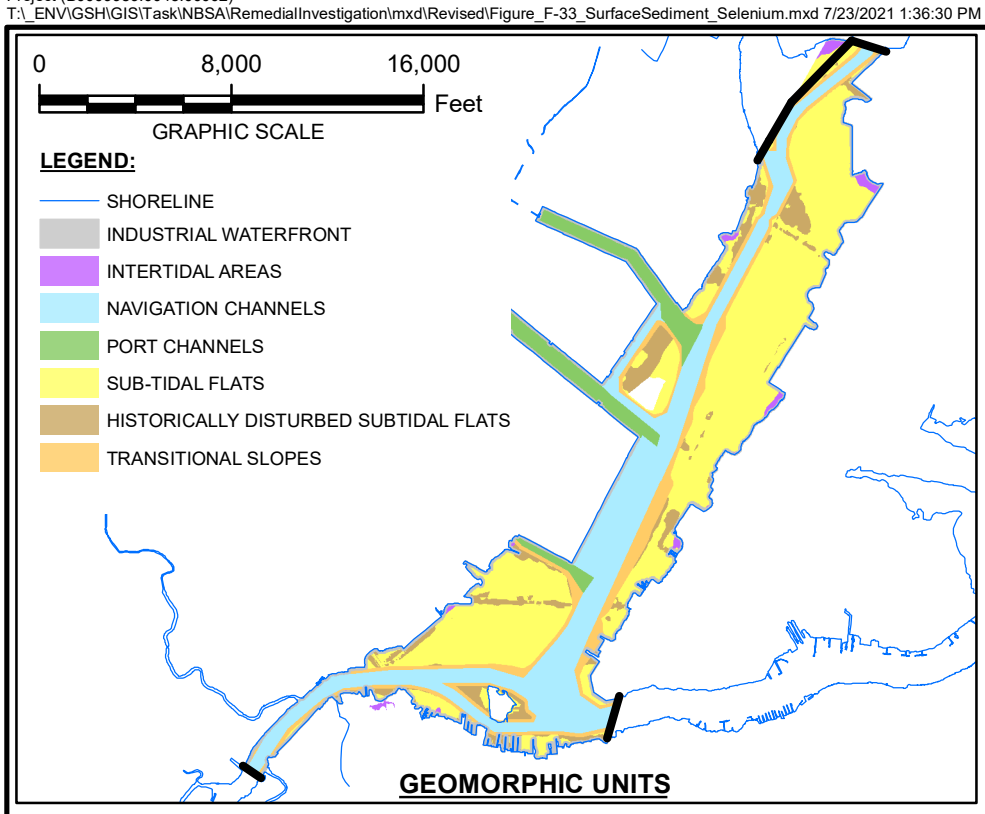
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - NICKEL

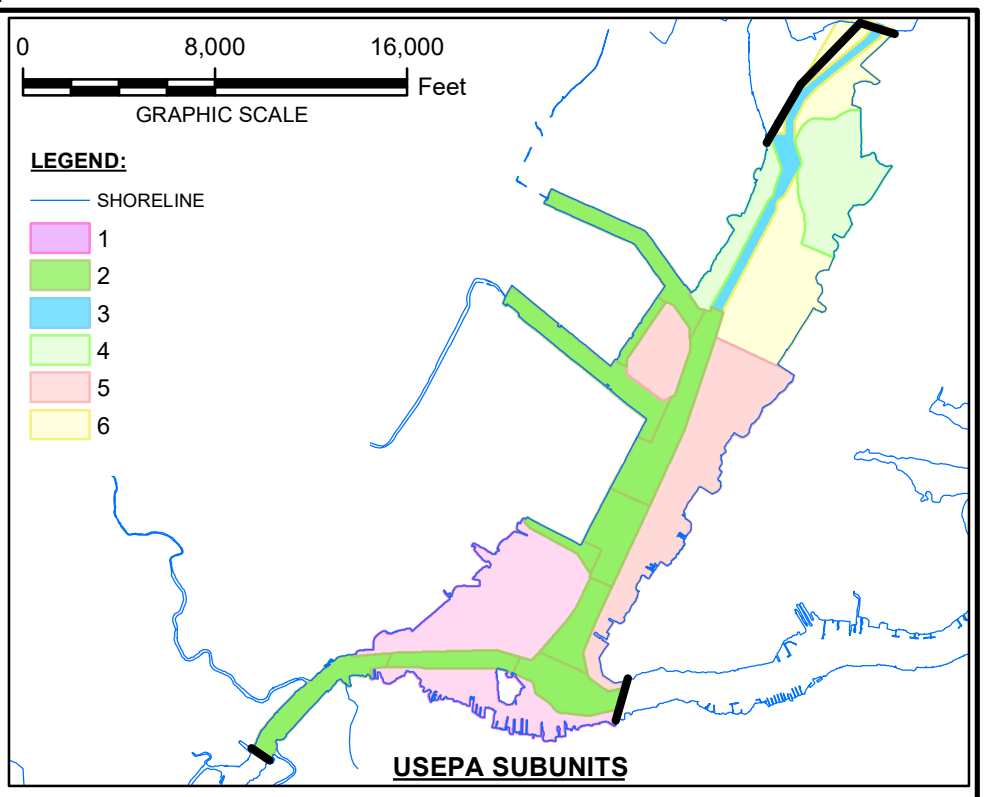
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-32

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-33_SurfaceSediment_Selenium.mxd 7/23/2021 1:36:30 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
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- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

SELENIUM (mg/kg) (SEE NOTE 3)

- ≤ 0.5235
- < 0.5235 - 0.779
- < 0.779 - 1.2
- < 1.2 - 2.4
- > 2.4

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
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HACKENSACK RIVER
PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
NEWARK BAY CENTRAL
COMP04
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
COMP09
SHOOTERS ISLAND
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000
Feet
GRAPHIC SCALE

DIAMOND ALKALI SUPERFUND SITE

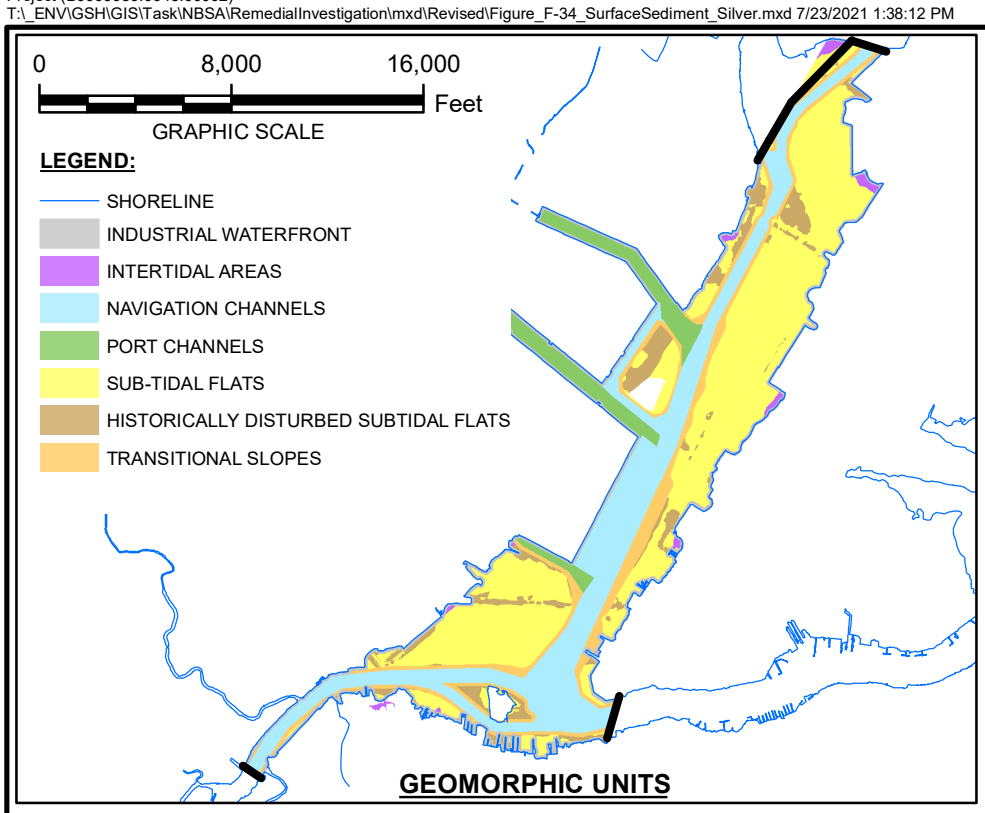
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - SELENIUM

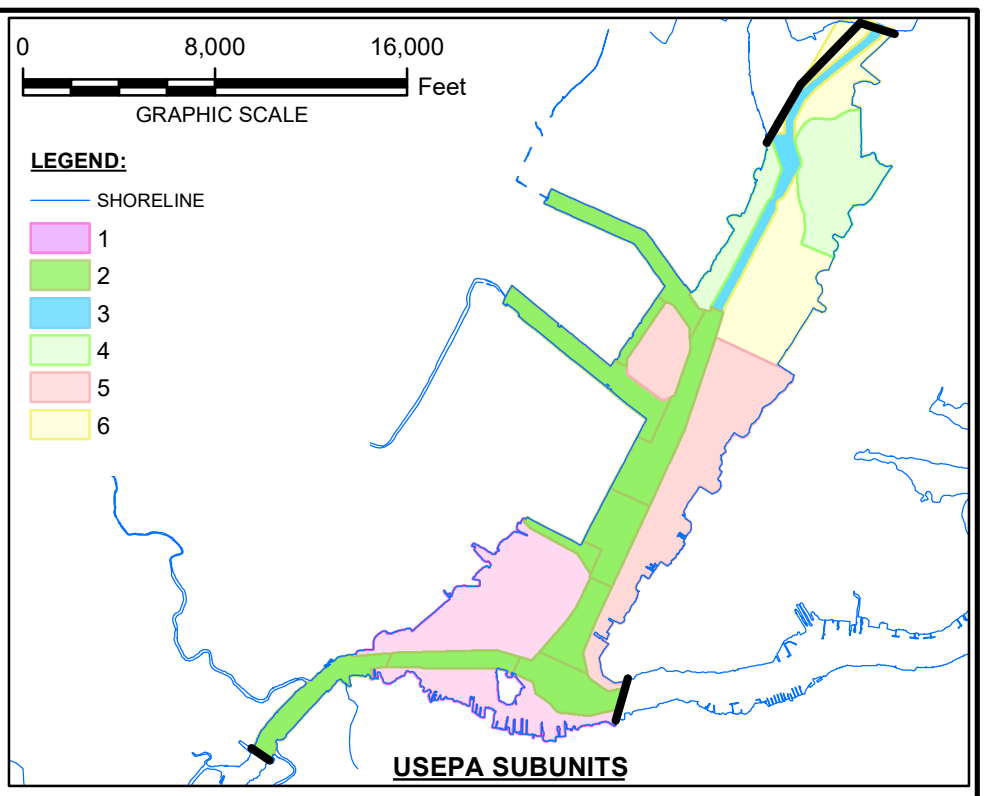
Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-33

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-34_SurfaceSediment_Silver.mxd 7/23/2021 1:38:12 PM



GEOMORPHIC UNITS



USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
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- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

SILVER (mg/kg) (SEE NOTE 3)

- ≤ 0.756
- < 0.756 - 1.715
- < 1.715 - 2.54
- < 2.54 - 4.045
- > 4.045

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
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9. BE-7 BEARING LOCATIONS ARE DEFINED AS LOCATIONS WITH SURFACE SAMPLES ANALYZED FOR BE-7 AND RESULT CONCENTRATIONS GREATER THAN OR EQUAL TO 0.5 PICOCURIE PER GRAM (PCI/G). THESE LOCATIONS ARE CONSIDERED TO INDICATE RECENTLY DEPOSITED SEDIMENTS. ONLY PHASE I/II SAMPLES WERE ANALYZED FOR BE-7.
10. THE CONRAIL BRIDGE REMNANTS, BAYONNE BRIDGE, AND GOETHALS BRIDGE ARE CONVENIENT LANDMARKS, BUT THEY DO NOT CONSTITUTE ADMINISTRATIVE BOUNDARIES.
11. REFERENCE:
    A. USEPA. 2020. DIAMOND ALKALI SUPERFUND SITE - BOUNDARY BETWEEN OPERABLE UNIT 2 AND OPERABLE UNIT 3. MEMORANDUM FROM MICHAEL SIVAK, BRANCH CHIEF OF PASSAIC, HACKENSACK, AND NEWARK BAY REMEDIATION BRANCH TO FILE. APRIL 6.

HACKENSACK RIVER
PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
NEWARK BAY CENTRAL
COMP04
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
SHOOTERS ISLAND
COMP09
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

0 3,000 6,000 Feet
GRAPHIC SCALE

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - SILVER

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-34

City: Citrix Div/Group: IM/DV Created By: K. Sinsabaugh Last Saved By: PJI01206
Project (B0009989.0045.00002)
T:_ENV\GSH\GIS\Task\NBSA\RemedialInvestigation\mxd\Revised\Figure_F-35_SurfaceSediment_Zinc.mxd 7/23/2021 1:39:47 PM

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- INDUSTRIAL WATERFRONT
- INTERTIDAL AREAS
- NAVIGATION CHANNELS
- PORT CHANNELS
- SUB-TIDAL FLATS
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- TRANSITIONAL SLOPES

GEOMORPHIC UNITS

0 8,000 16,000 Feet
GRAPHIC SCALE

LEGEND:

- SHORELINE
- 1
- 2
- 3
- 4
- 5
- 6

USEPA SUBUNITS

LEGEND:

- 2005 PHASE I CORE LOCATION
- 2007 PHASE II CORE LOCATION
- CO-LOCATED 2005 PHASE I / 2007 PHASE II CORE LOCATION
- 2014 CRAB/CLAM SEDIMENT SAMPLING LOCATION
- 2015 SQT SEDIMENT SAMPLE LOCATION
- 2016 PHASE III SEDIMENT SAMPLING LOCATION
- NON-DETECT RESULT. QUANTITATION LIMIT REPRESENTED BY SYMBOL COLOR
- Be-7 BEARING LOCATION

ZINC (mg/kg) (SEE NOTE 3)

- ≤ 144
- < 144 - 218
- < 218 - 325
- < 325 - 512
- > 512

- NEWARK BAY STUDY AREA BOUNDARY
- FORMER OU2/OU3 BOUNDARY
- HISTORICALLY DISTURBED SUBTIDAL FLATS
- SHORELINE
- NORTH, CENTRAL & SOUTH GEOGRAPHIC ZONE BOUNDARY
- NAVIGATION CHANNEL
- BOUNDARY OF PHASE III COMPOSITE SAMPLING AREAS

NOTES:

1. HORIZONTAL DATUM: NEW JERSEY STATE PLANE COORDINATE SYSTEM, NAD83.
2. SHORELINE IS DIGITIZED FROM AERIAL PHOTO DATED JULY 2002 (INTRASEARCH, ENGLEWOOD, CO).
3. RANGES PRESENTED FOR RESULTS ARE BASED ON THE 25TH, 50TH, 75TH, AND 90TH PERCENTILE OF THE SURFACE SEDIMENT DATA SET.
4. SAMPLING LOCATIONS COLLECTED DURING PHASE I/II FROM WITHIN THE NAVIGATION CHANNEL IN NEWARK BAY SOUTH AND NEWARK BAY CENTRAL MAY HAVE BEEN AFFECTED BY DREDGING ACTIVITIES CONDUCTED SINCE SAMPLE COLLECTION.
5. COMP01-COMP10 ARE COMPOSITE SAMPLES COLLECTED IN THE DREDGED PORTION OF THE NAVIGATION CHANNEL DURING THE 2016 PHASE III SAMPLING PROGRAM. A SYMBOL LOCATED CENTRALLY WITHIN EACH COMPOSITE AREA IS COLOR-CODED ACCORDING TO THE CONCENTRATION VALUES AS SHOWN IN THE LEGEND ABOVE.
6. LOCATIONS OUTSIDE THE STUDY AREA ARE SHOWN FOR CONSISTENCY BUT NOT INCLUDED IN STATISTICAL ANALYSIS.
7. GEOGRAPHIC ZONE BOUNDARIES ARE USED TO DIVIDE THE STUDY AREA INTO NORTH, CENTRAL, AND SOUTH ZONES.
8. THE NEWARK BAY STUDY AREA BOUNDARY WAS USEPA APPROVED AND UTILIZED IN THE PHASE I, II, AND III SEDIMENT INVESTIGATIONS. IN APRIL 2020, USEPA REVISED THE BOUNDARY BETWEEN OU2 AND OU3 SUCH THAT KEARNY POINT IS ENTIRELY INCLUDED IN OU2 (USEPA 2020), AS SHOWN. THE BOUNDARY MAY BE CHANGED BY USEPA FOR FUTURE INVESTIGATIONS UNDER THE RI/FS.
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PIERSONS CREEK
PASSAIC RIVER
Kearny Flat
CONRAIL BRIDGE REMNANTS
PORT NEWARK CHANNEL
COMP01
NEWARK BAY NORTH
ELIZABETH CHANNEL
COMP10
COMP02
NEWARK BAY CDF (CELL 1S)
NEWARK BAY CENTRAL
COMP04
COMP05
COMP03
SOUTH ELIZABETH CHANNEL
COMP08
COMP06
NEWARK BAY SOUTH
KILL VAN KULL
ELIZABETH RIVER
COMP07
COMP09
SHOOTERS ISLAND
BAYONNE BRIDGE
GOETHALS BRIDGE
OLD PLACE CREEK
ARTHUR KILL

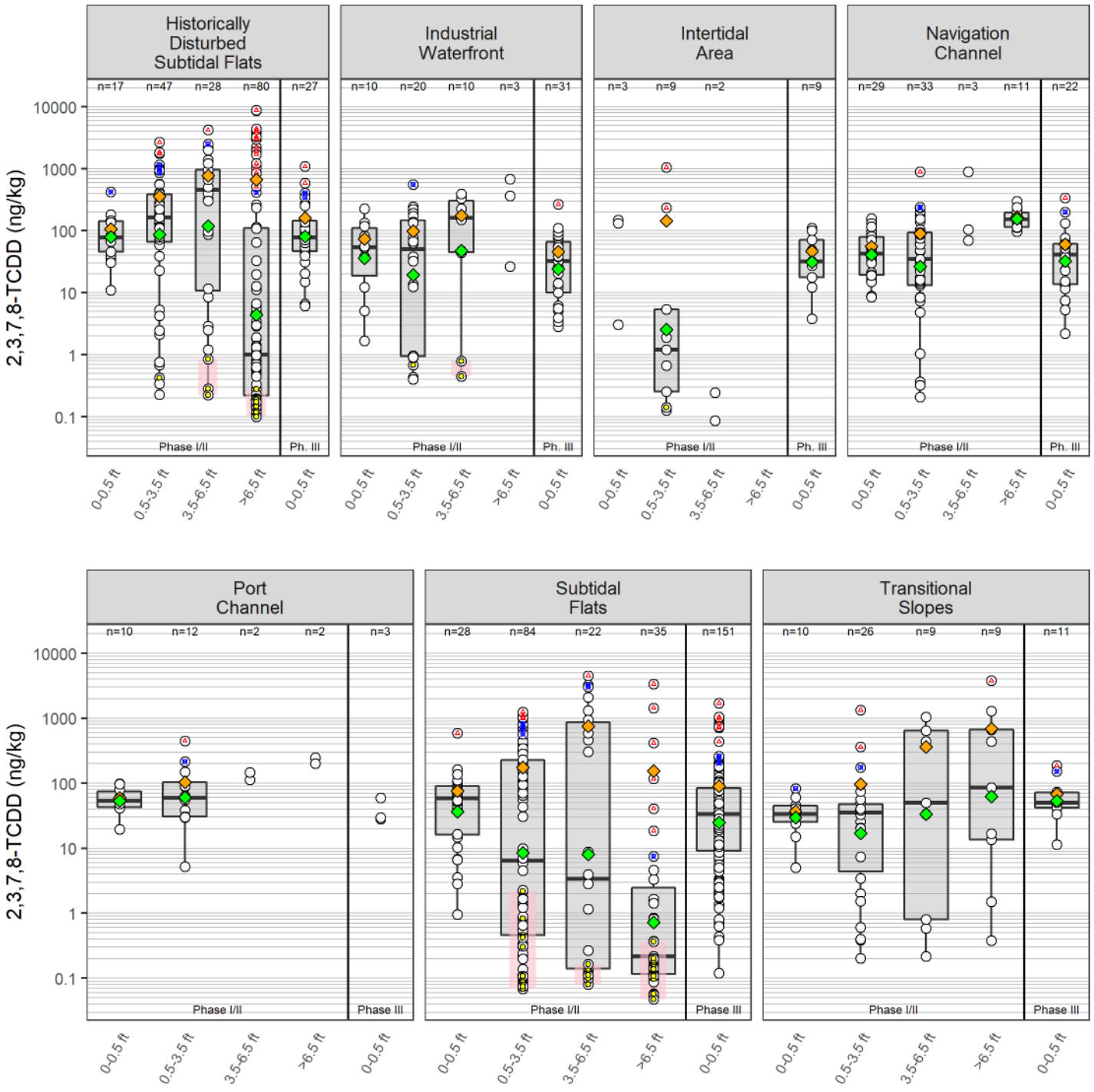
0 3,000 6,000 Feet
GRAPHIC SCALE

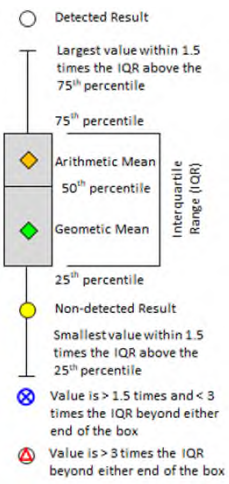
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SURFACE SEDIMENT (0 - 0.5 FEET) RESULTS - ZINC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

FIGURE
F-35





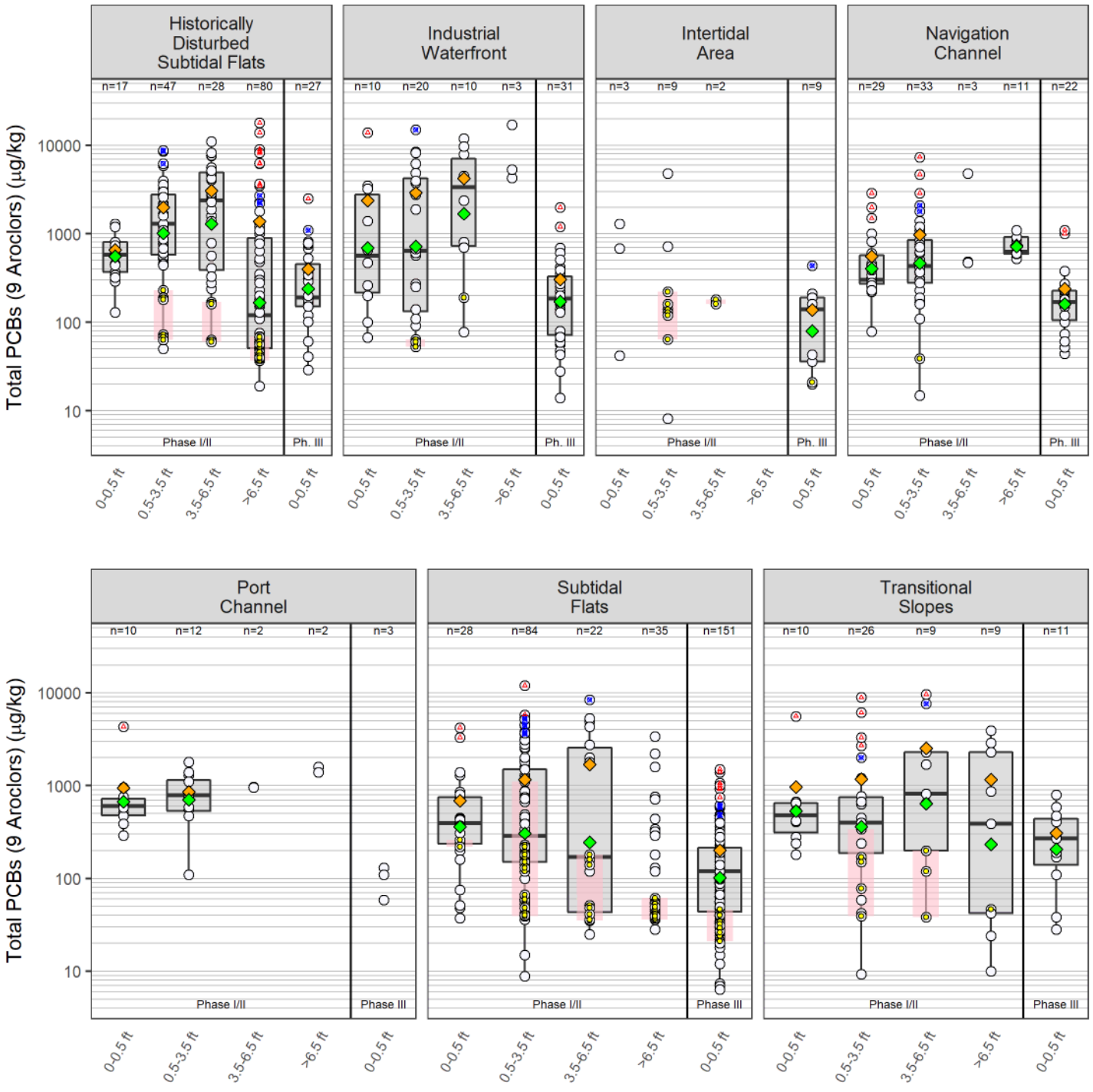
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Top depth >= 6.5 ft = >6.5 ft
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For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

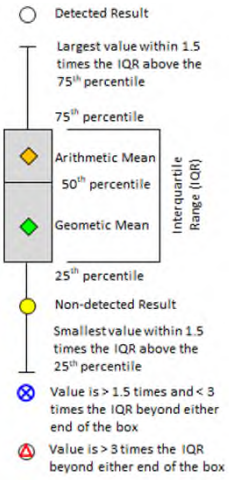
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - 2,3,7,8-TCDD

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-36





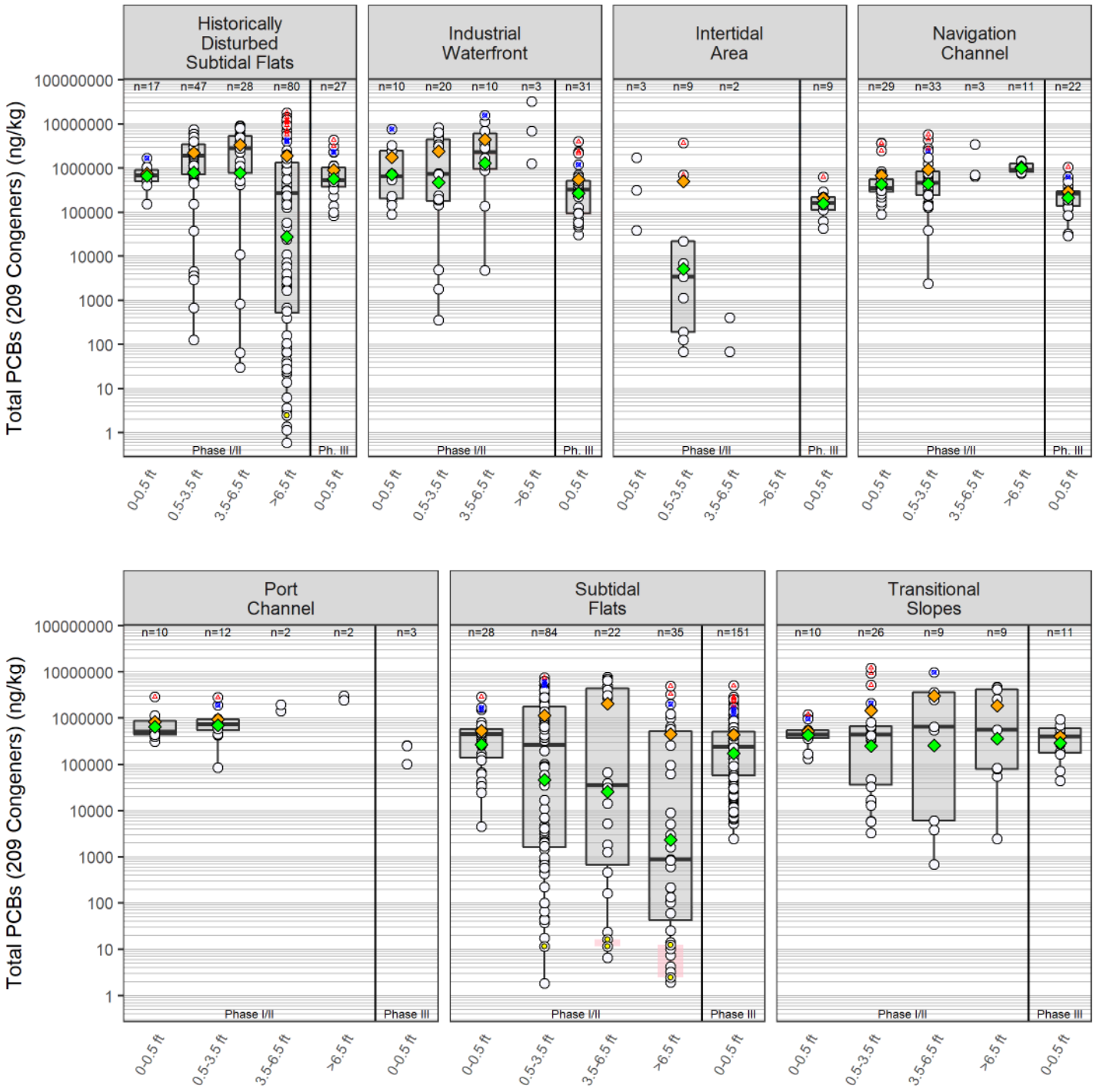
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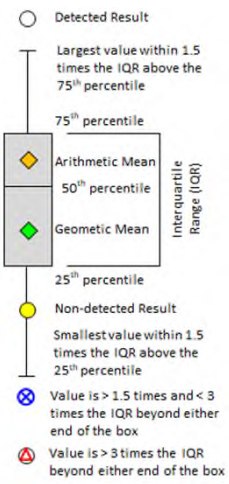
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL PCBS (9 AROCLORS)

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-37





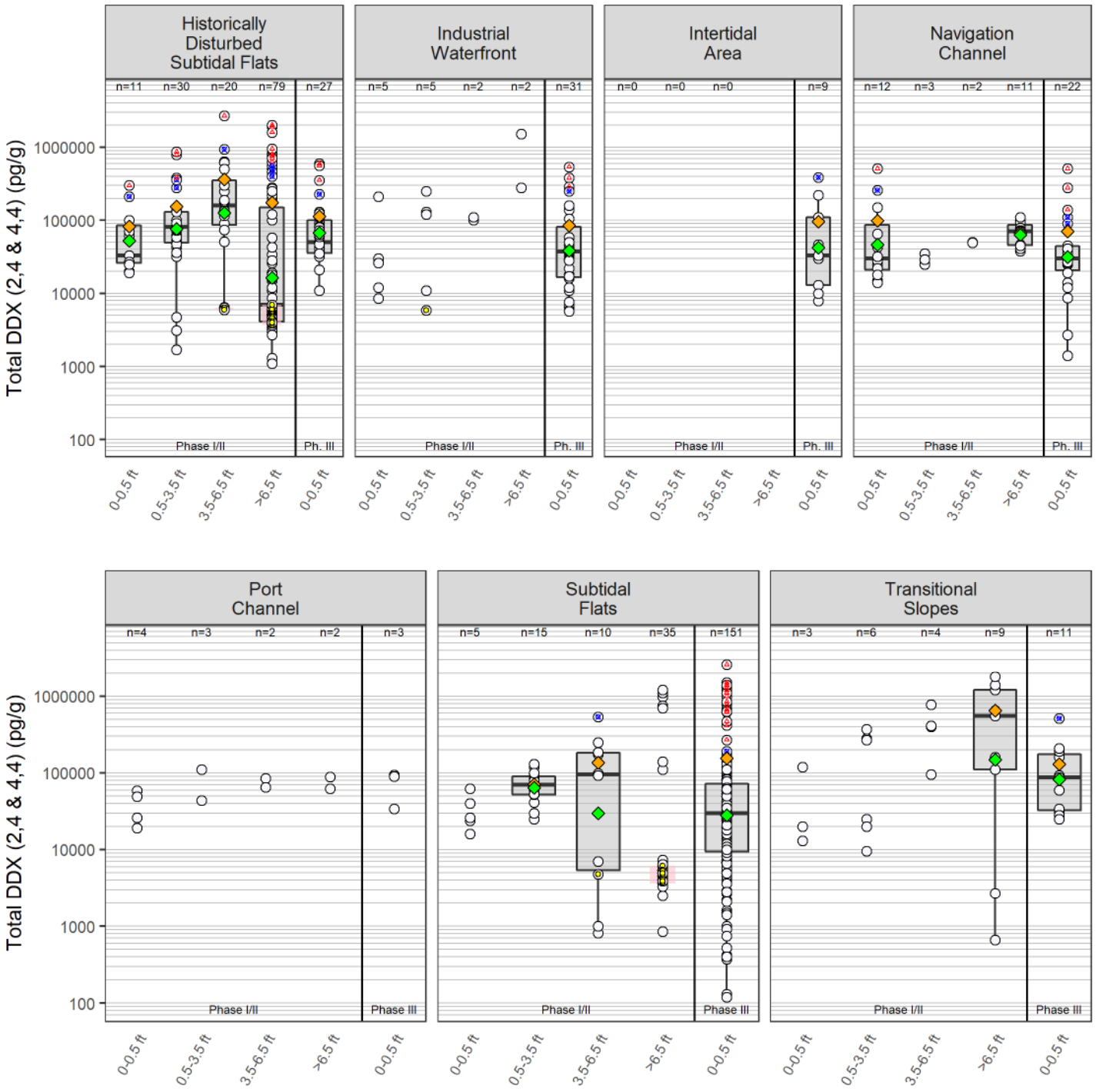
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Geomorphic areas shown on Figure 2-7.

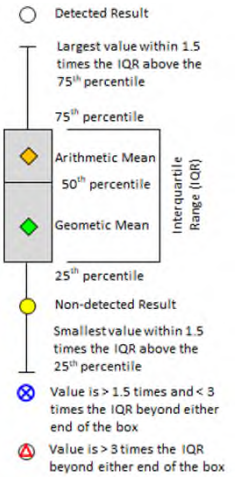
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL PCB (209 CONGENERS)

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-38





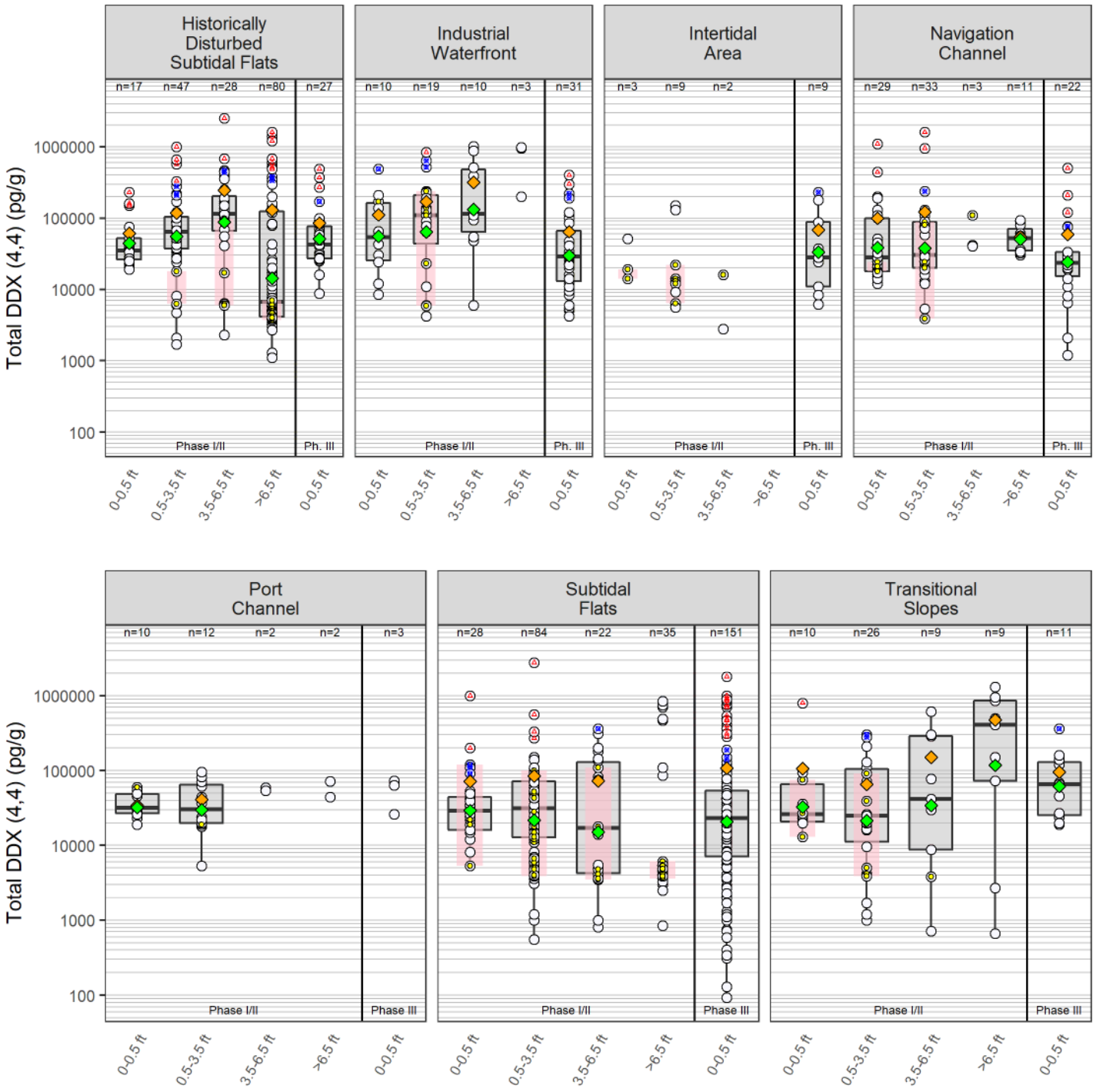
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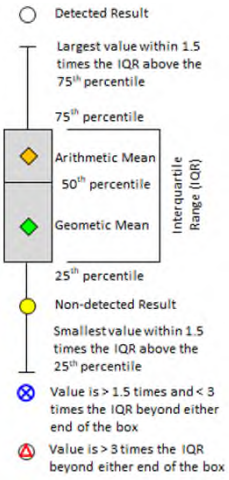
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL DDX (2,4 & 4,4)

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-39





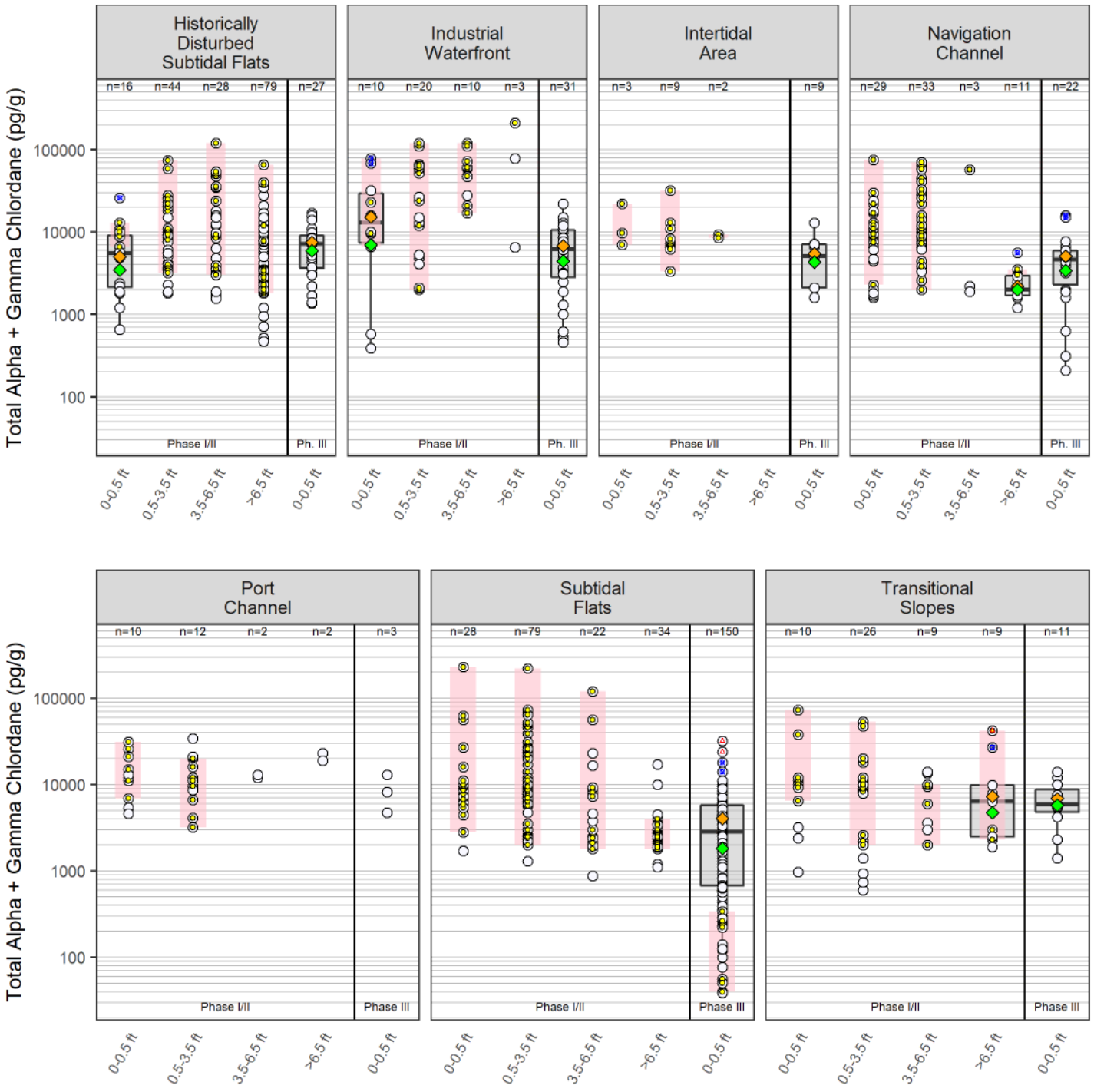
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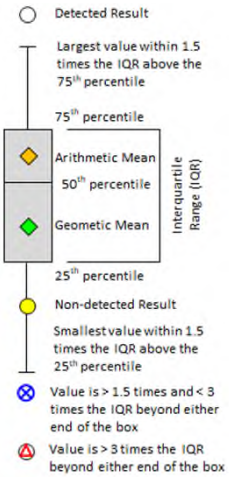
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL DDX (4,4)

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-40





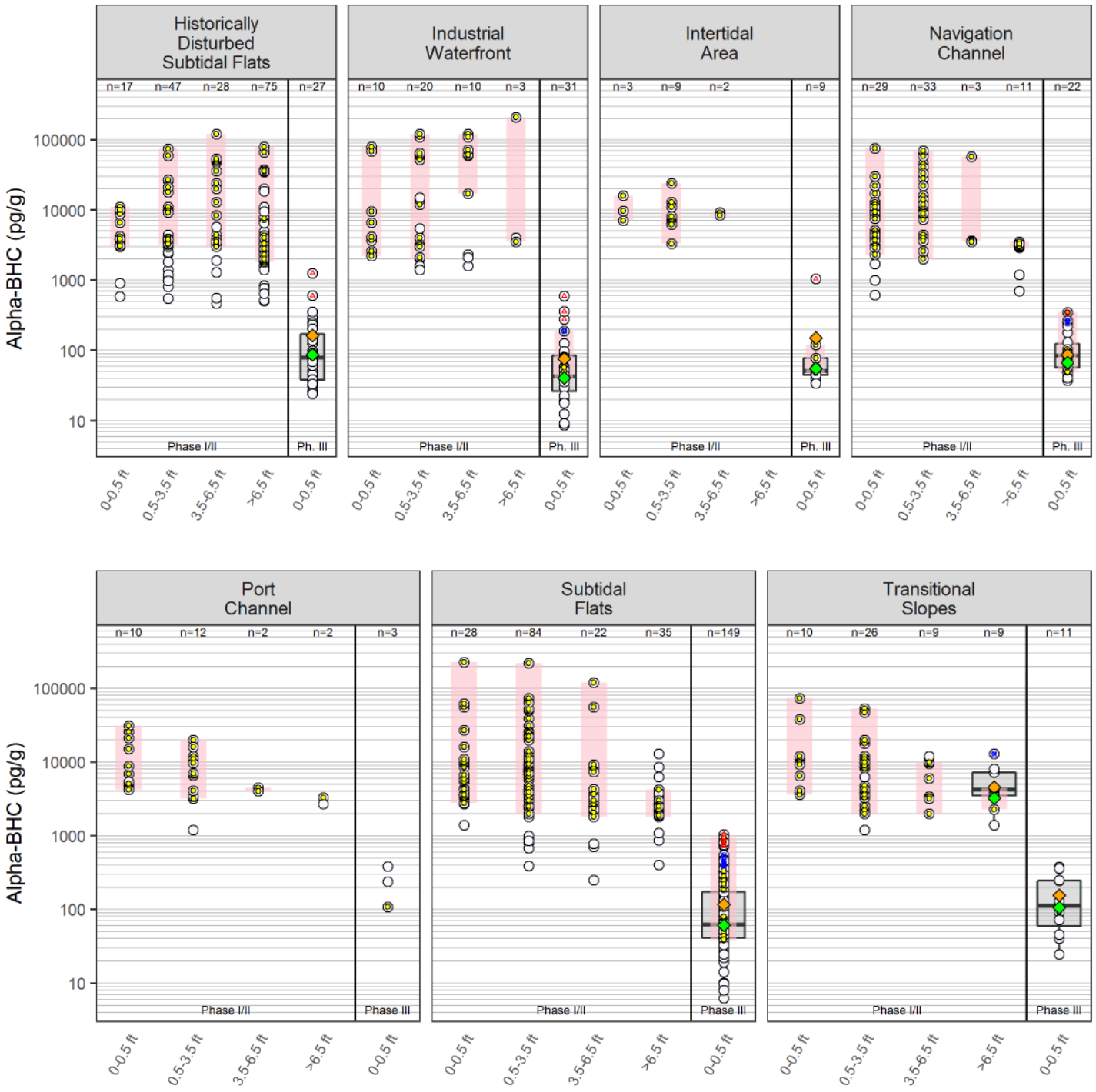
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DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL ALPHA + GAMMA CHLORDANE

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-41



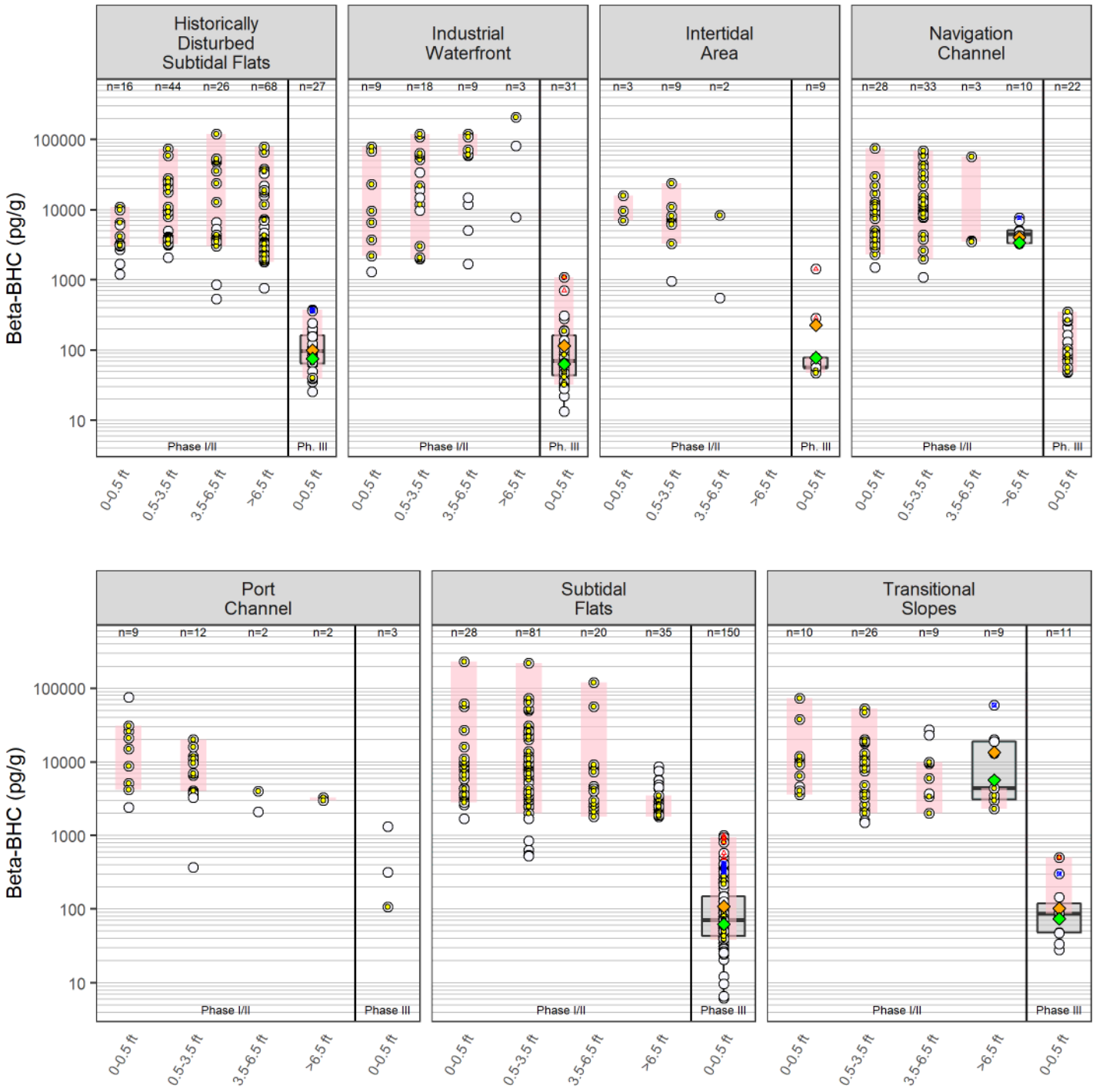
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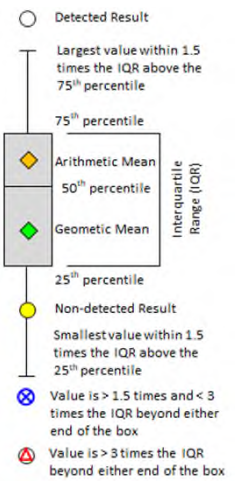
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - ALPHA-BHC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-42





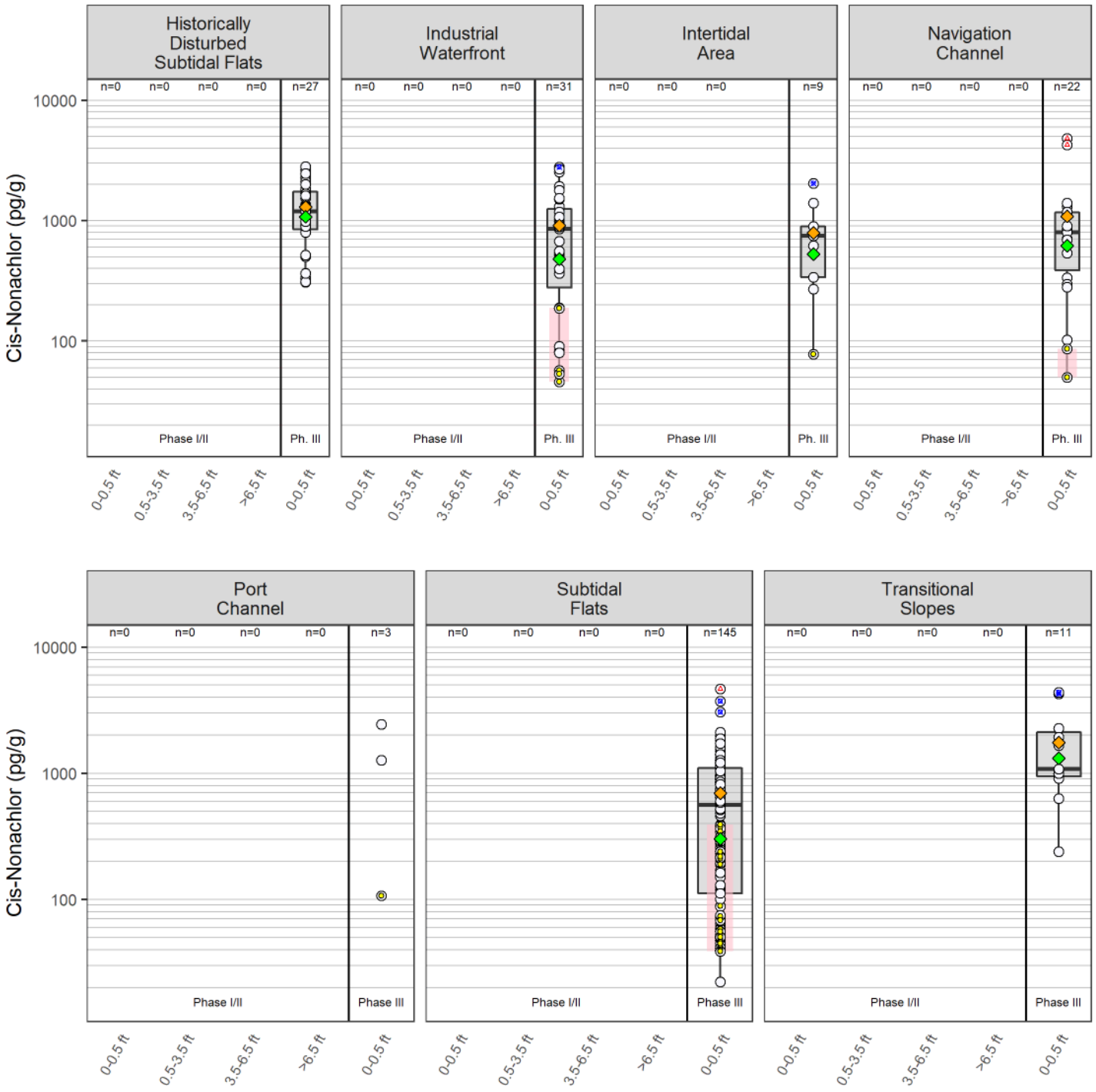
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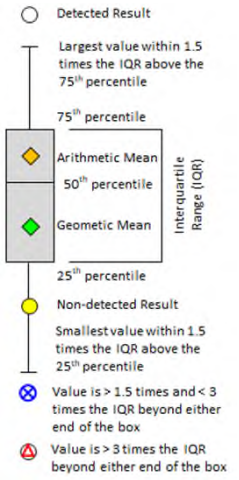
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - BETA-BHC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-43





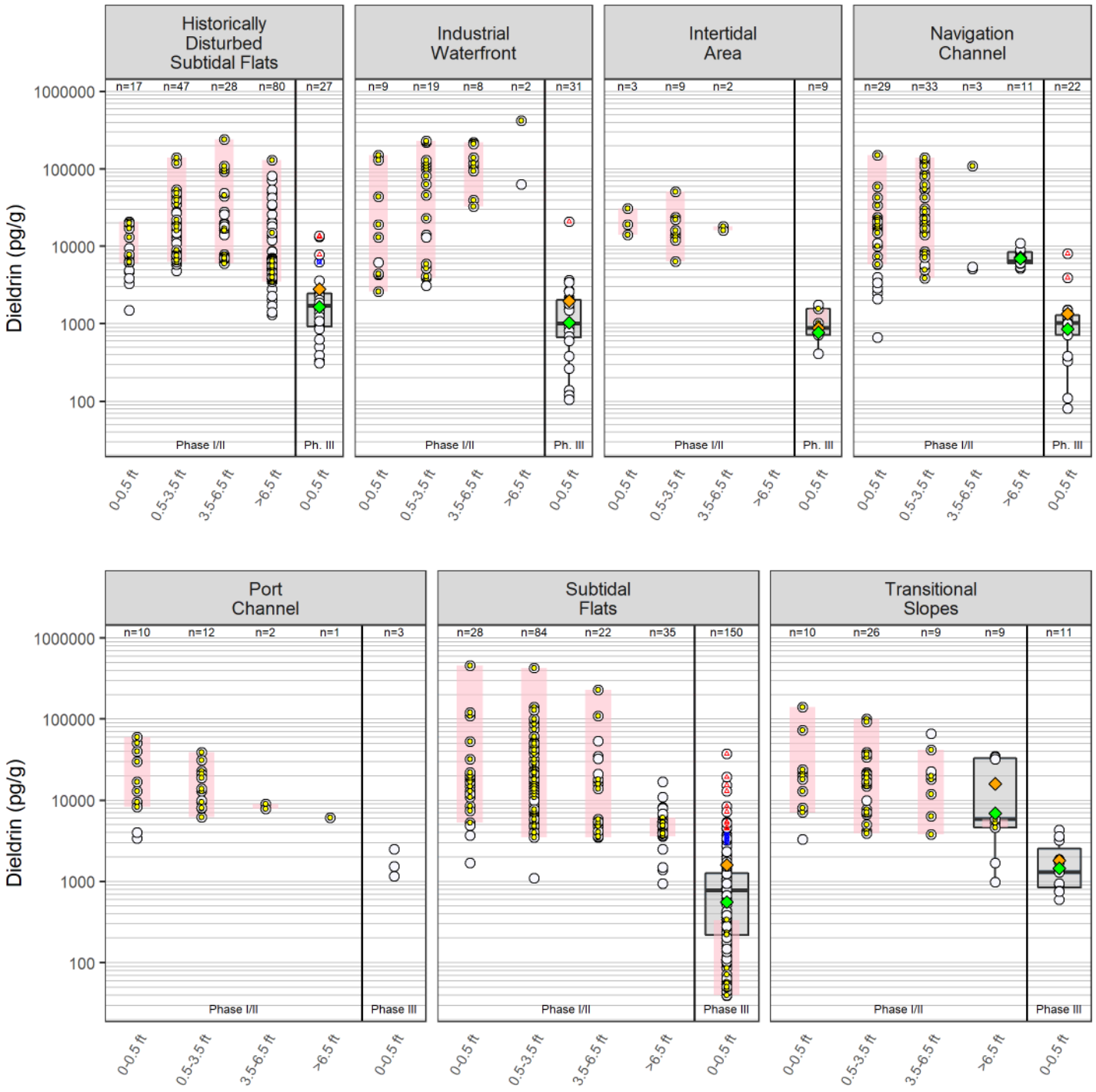
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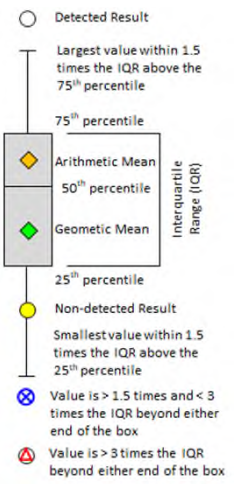
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - CIS-NONACHLOR

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-44





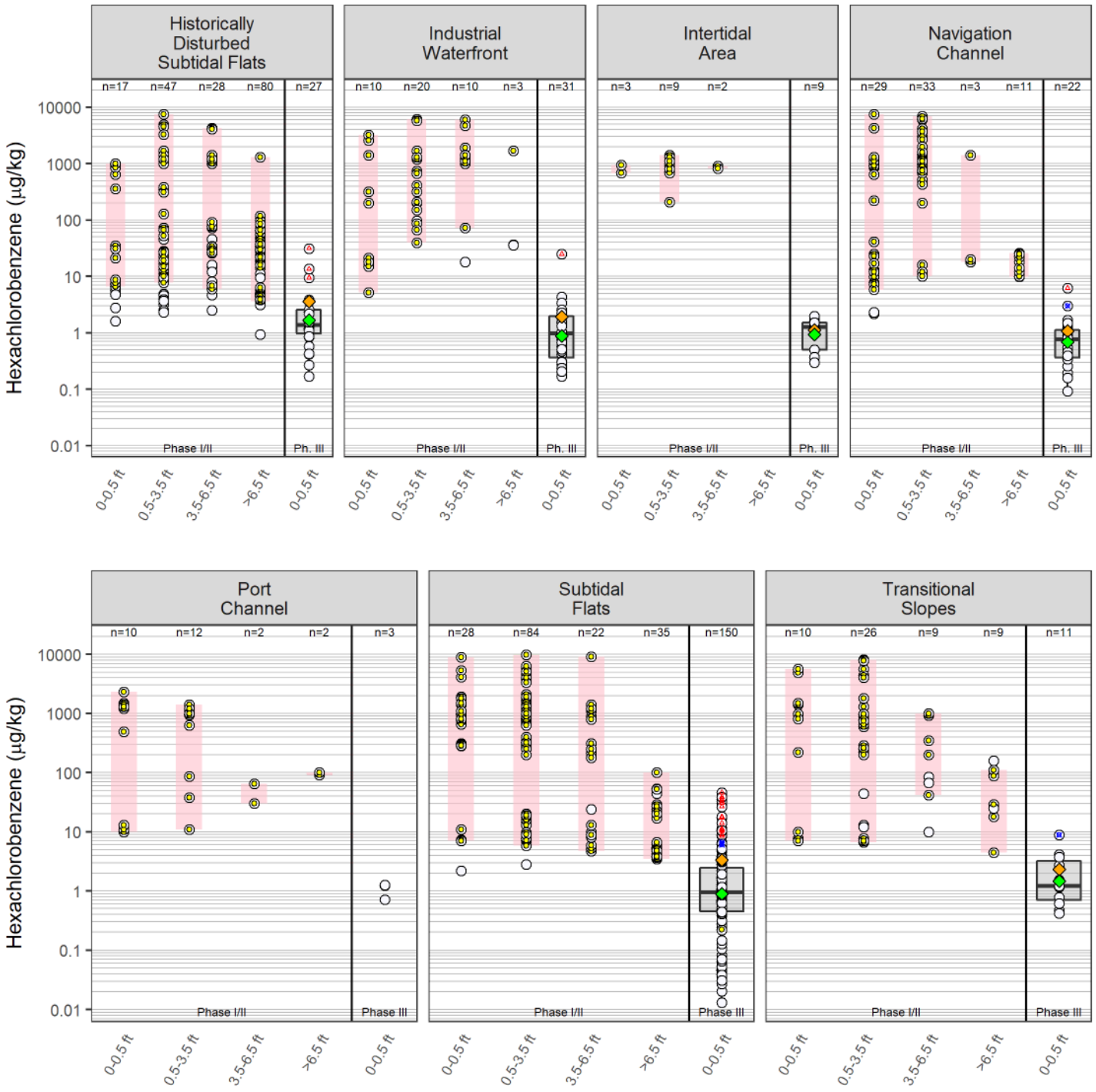
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

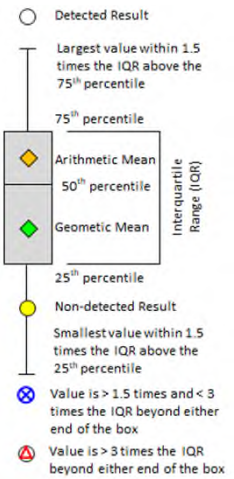
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - DIELDRIN

Glenn Springs Holdings, Inc.
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FIGURE
F-45





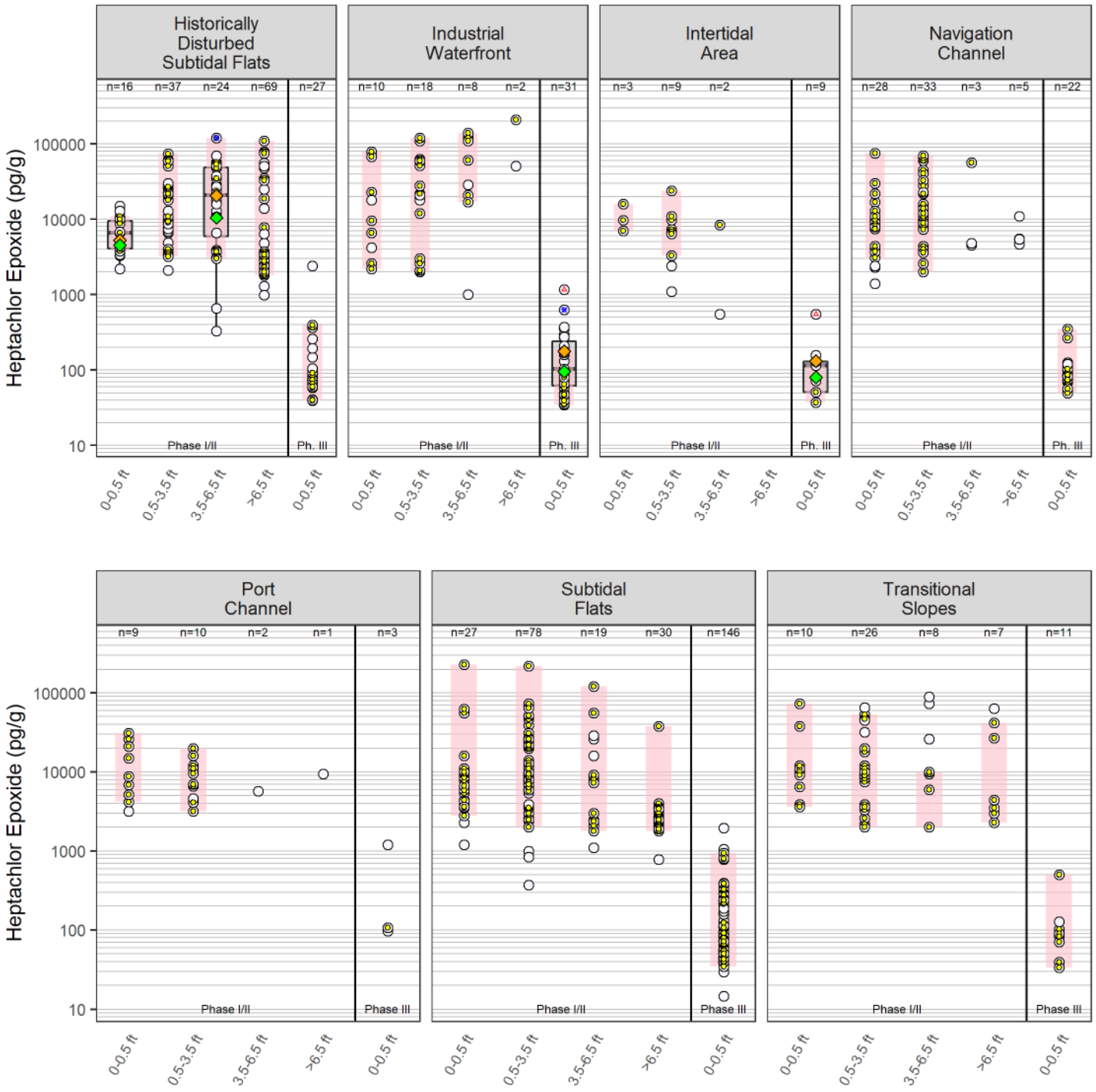
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Hexachlorobenzene was analyzed as a semi-volatile organic compound in Phase I/II and as a pesticide in Phase III. All Phase I results were non-detect.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - HEXACHLOROBENZENE

Glenn Springs Holdings, Inc.
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FIGURE
F-46



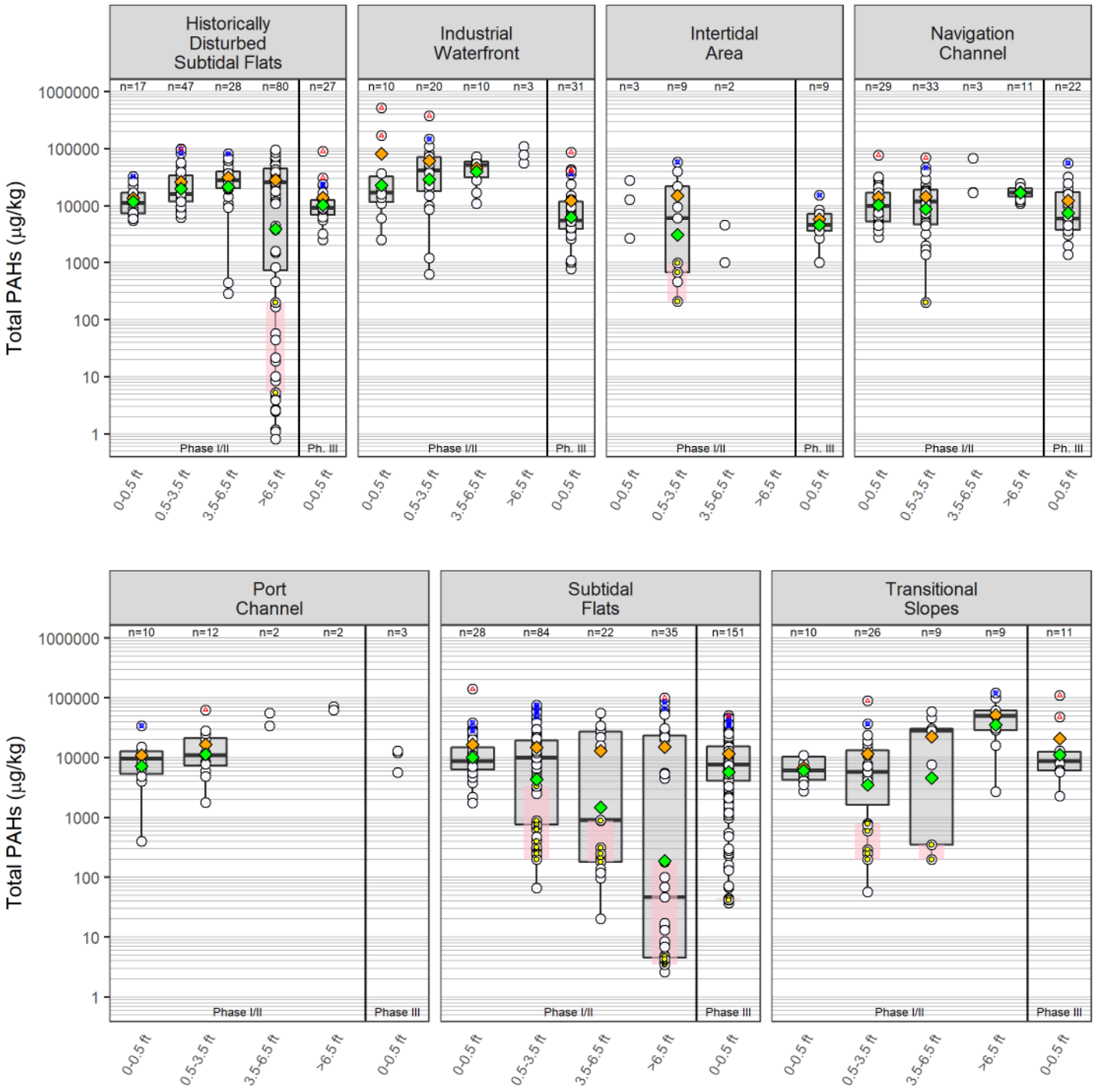
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

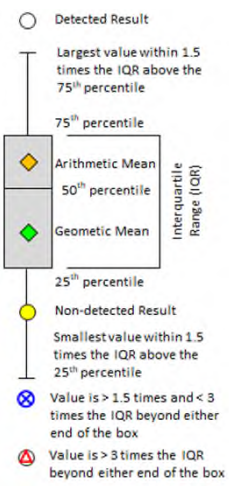
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - HEPTACHLOR EPOXIDE

Glenn Springs Holdings, Inc.
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FIGURE
F-47





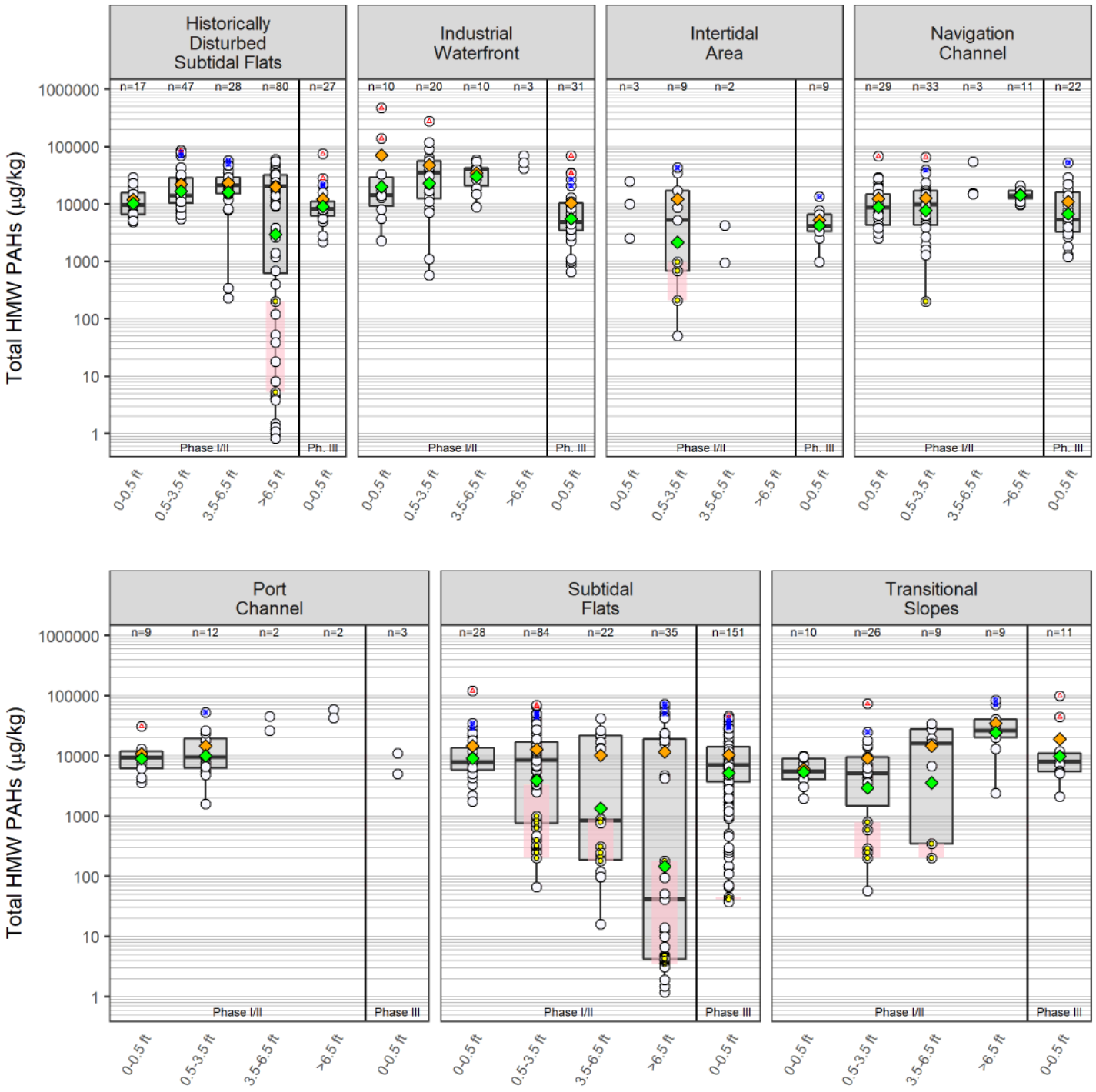
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

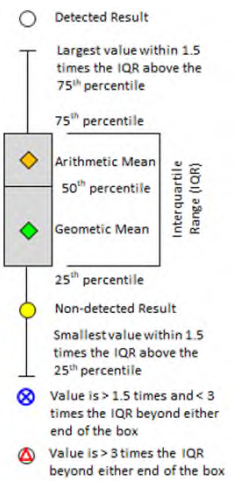
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL PAHS

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-48





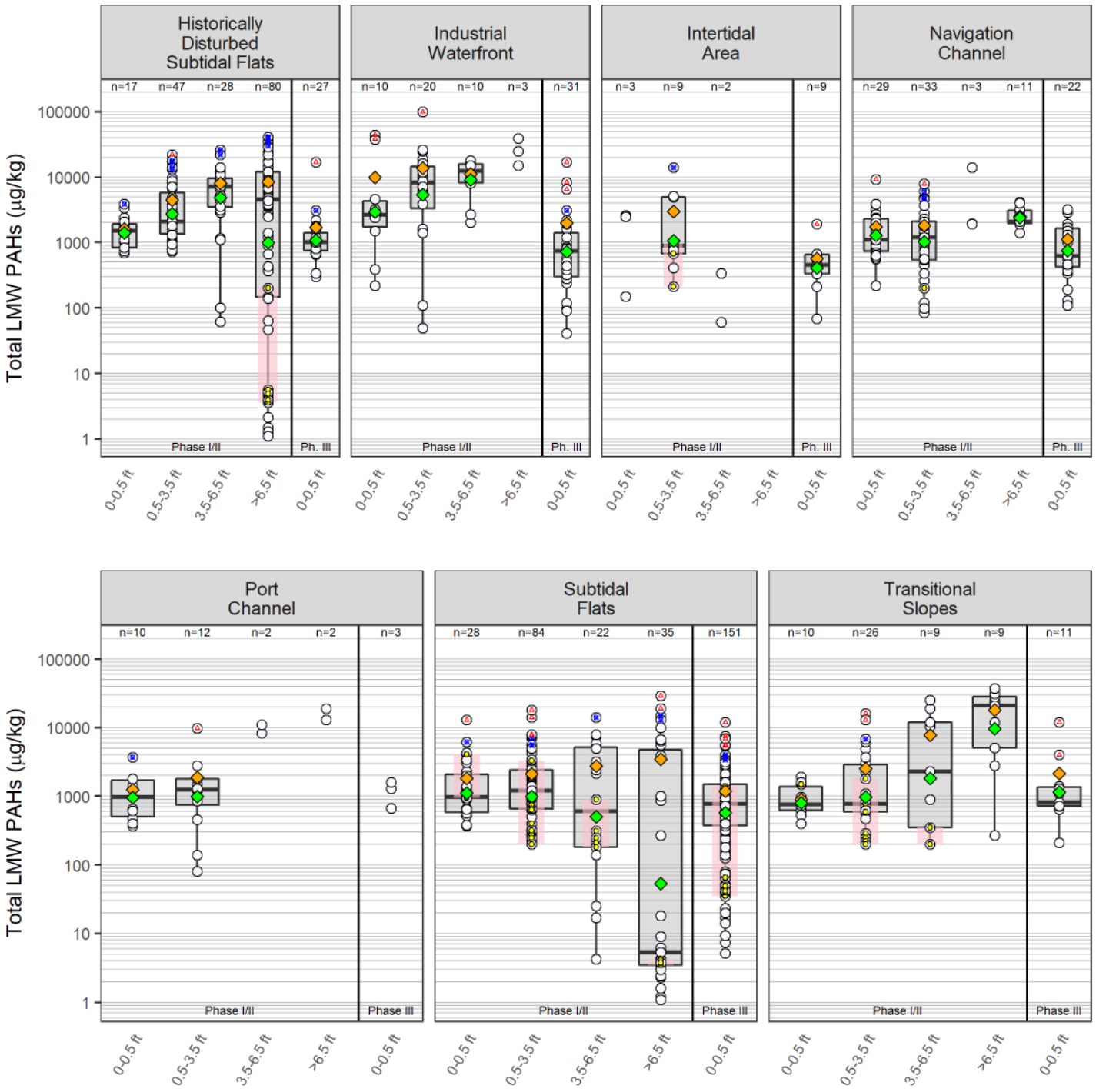
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

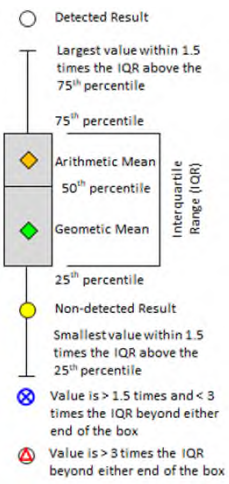
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL HMW PAHS

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-49





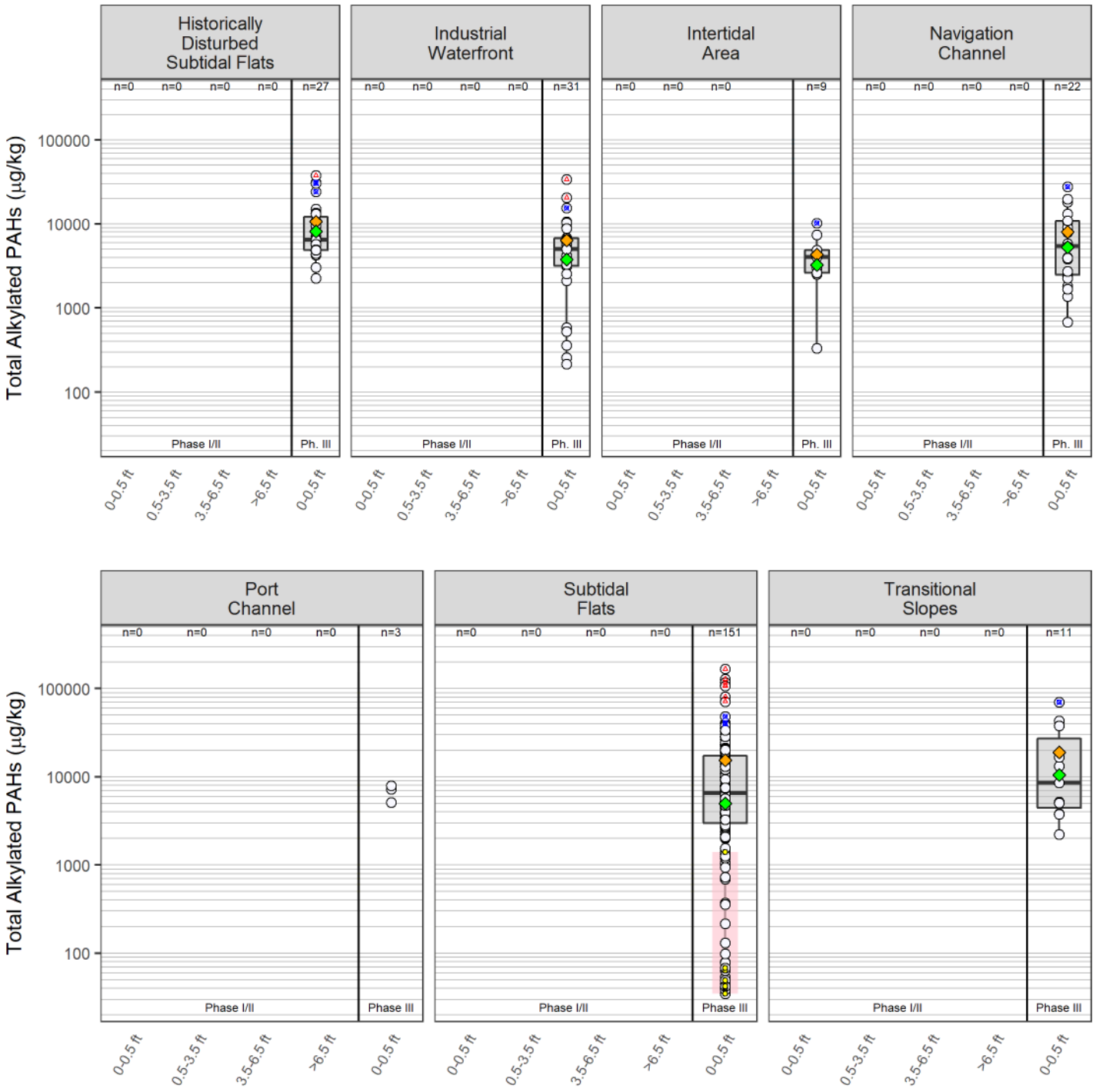
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

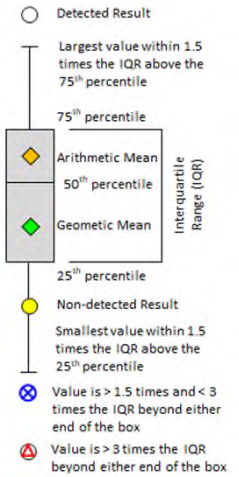
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL LMH PAHS

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-50





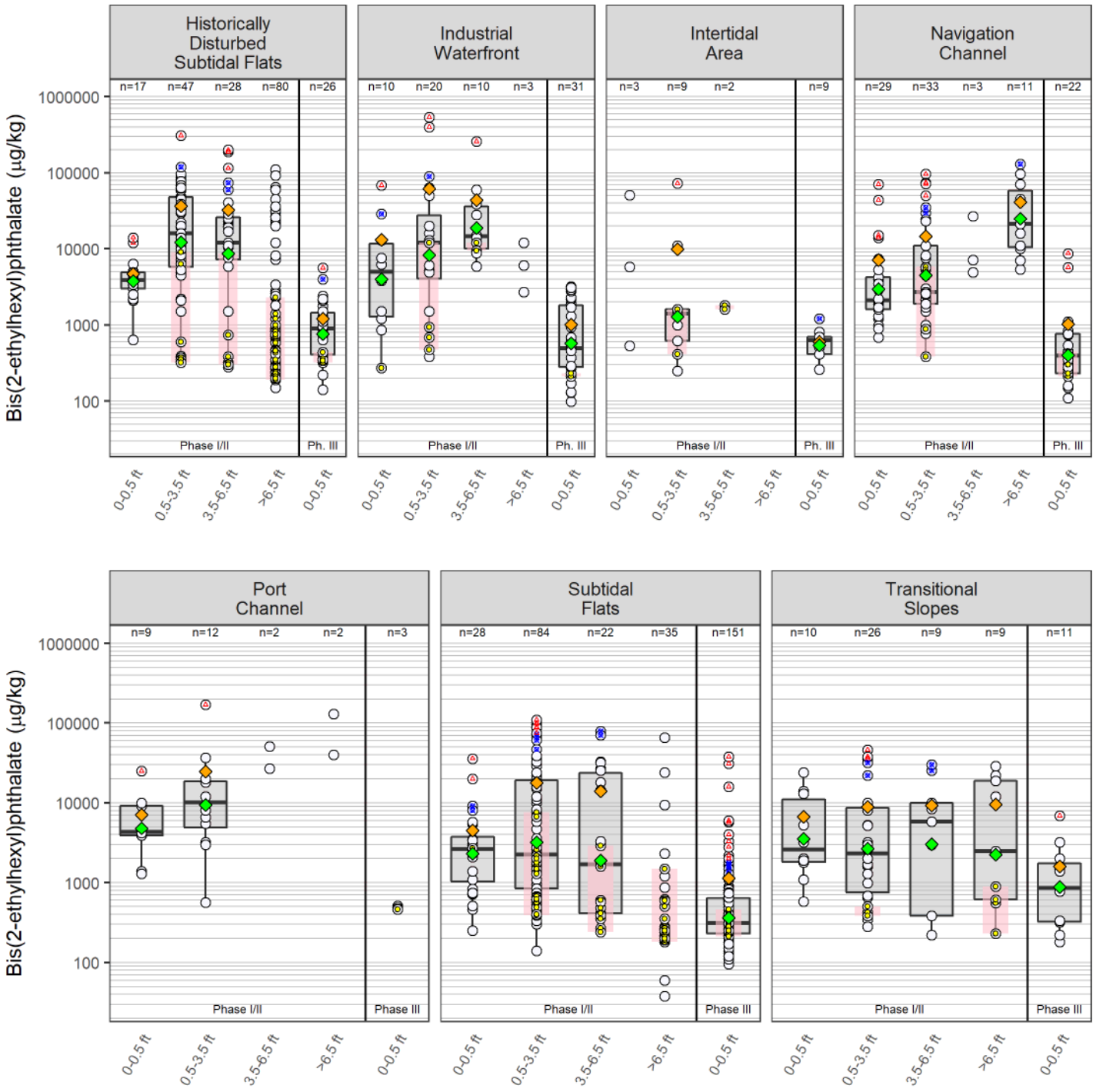
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Alkylated PAHs were not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

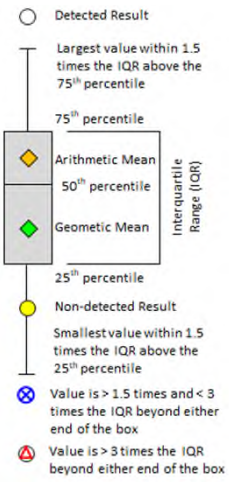
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL ALKYLATED PAHS

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FIGURE
F-51





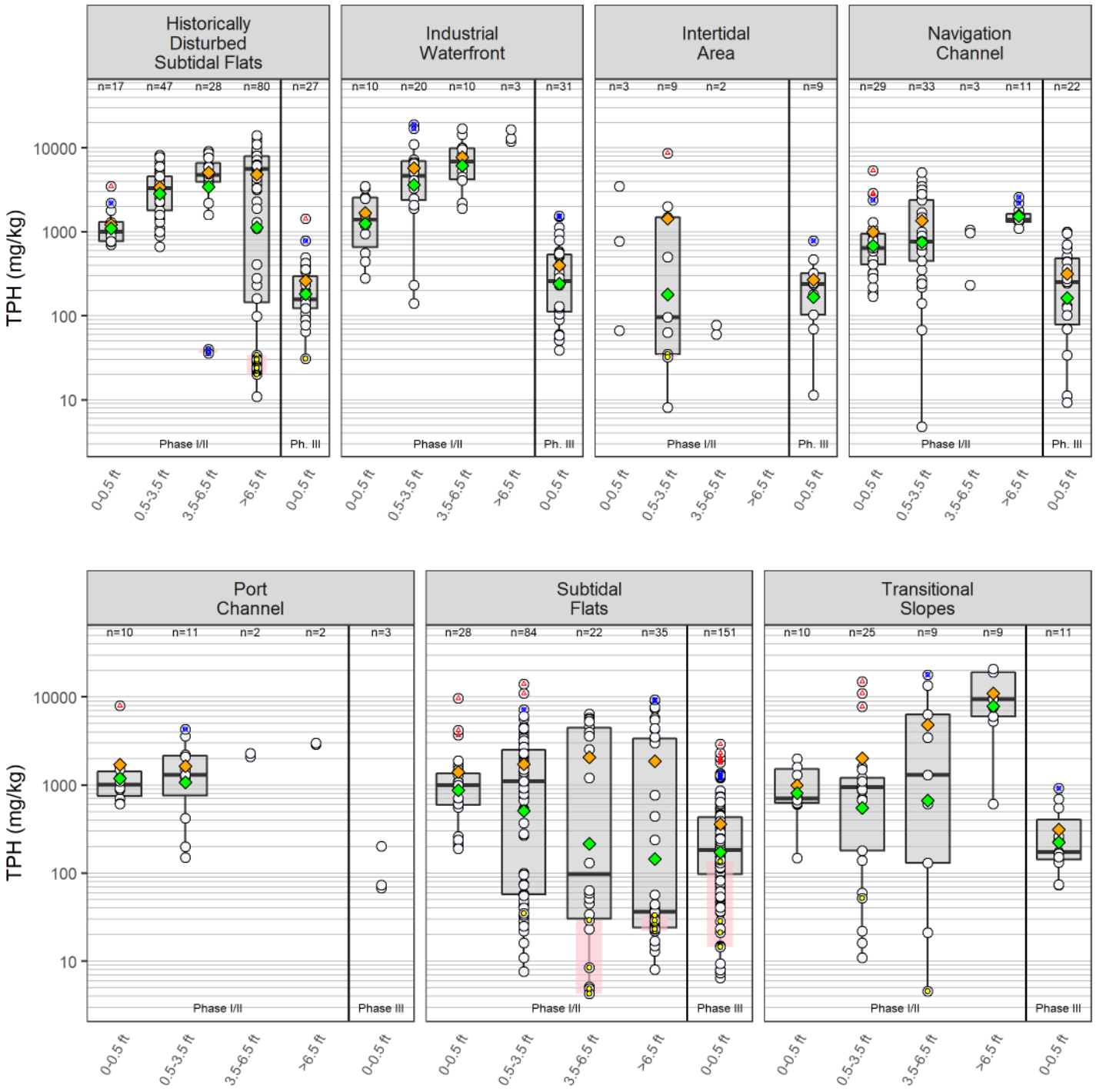
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

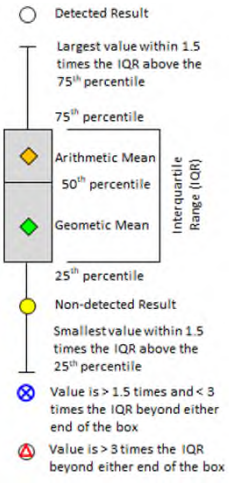
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - BIS(2-ETHYLHEXYL)PHTHALATE

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FIGURE
F-52





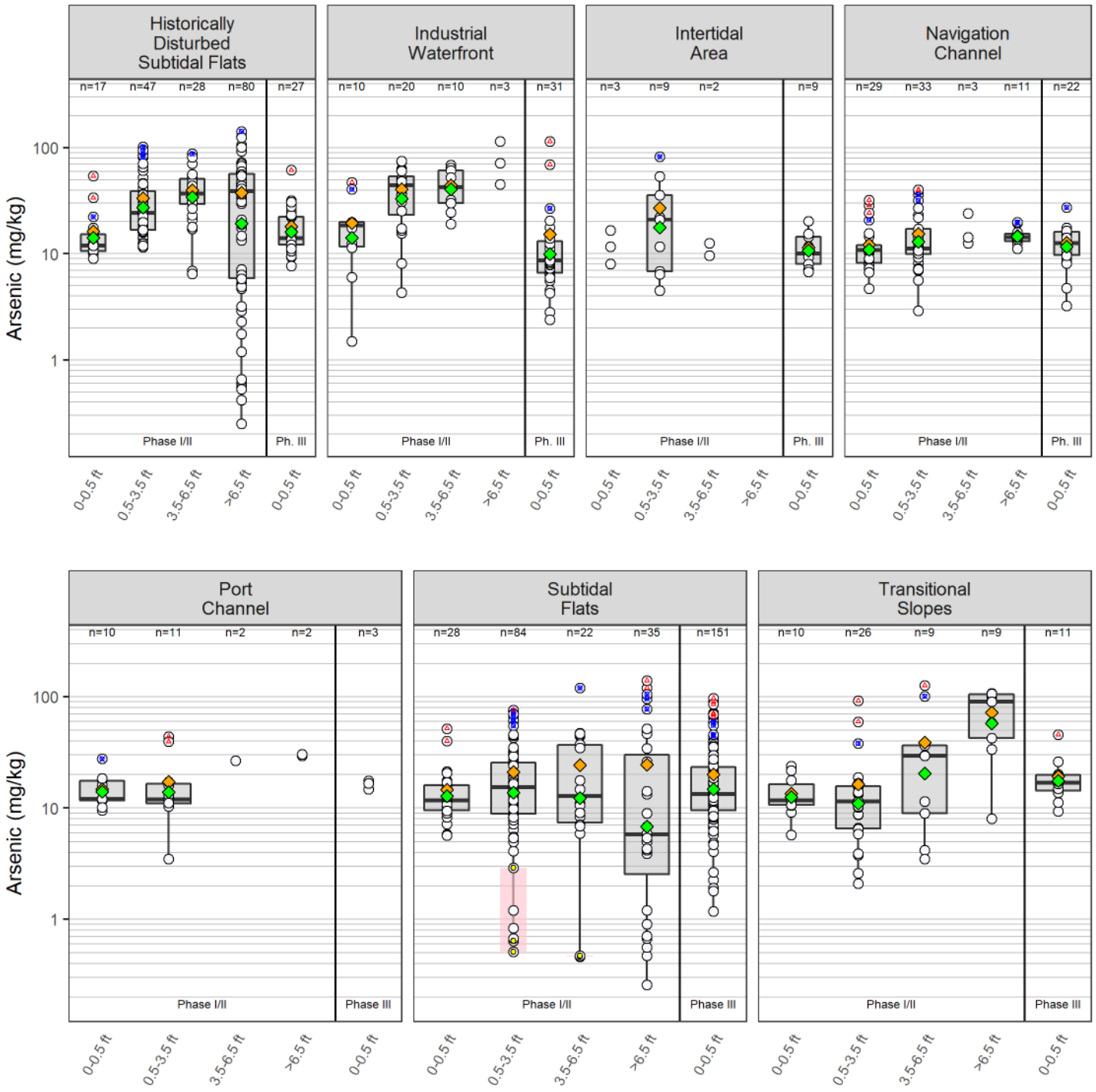
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.
The Phase I/II TPH data represent total extractable petroleum hydrocarbons (TEPH) whereas Phase III TPH data represent C9-C40 hydrocarbons.

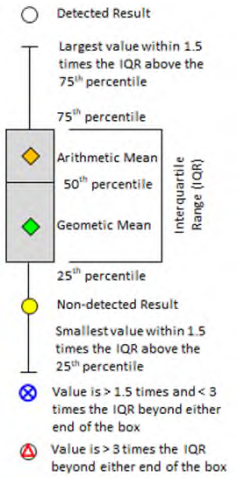
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TPH

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FIGURE
F-53





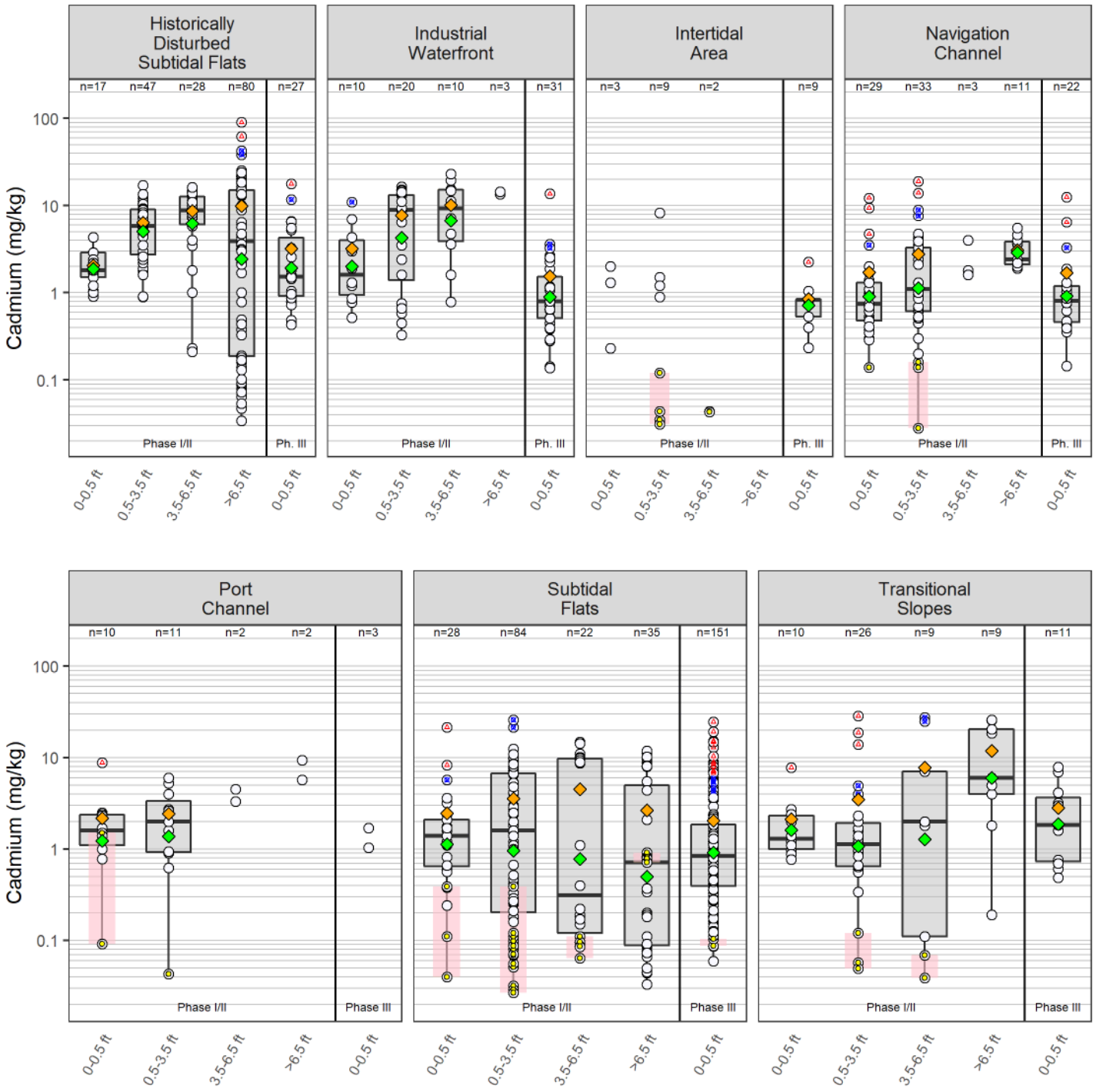
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
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REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - ARSENIC

Glenn Springs Holdings, Inc.
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FIGURE
F-54



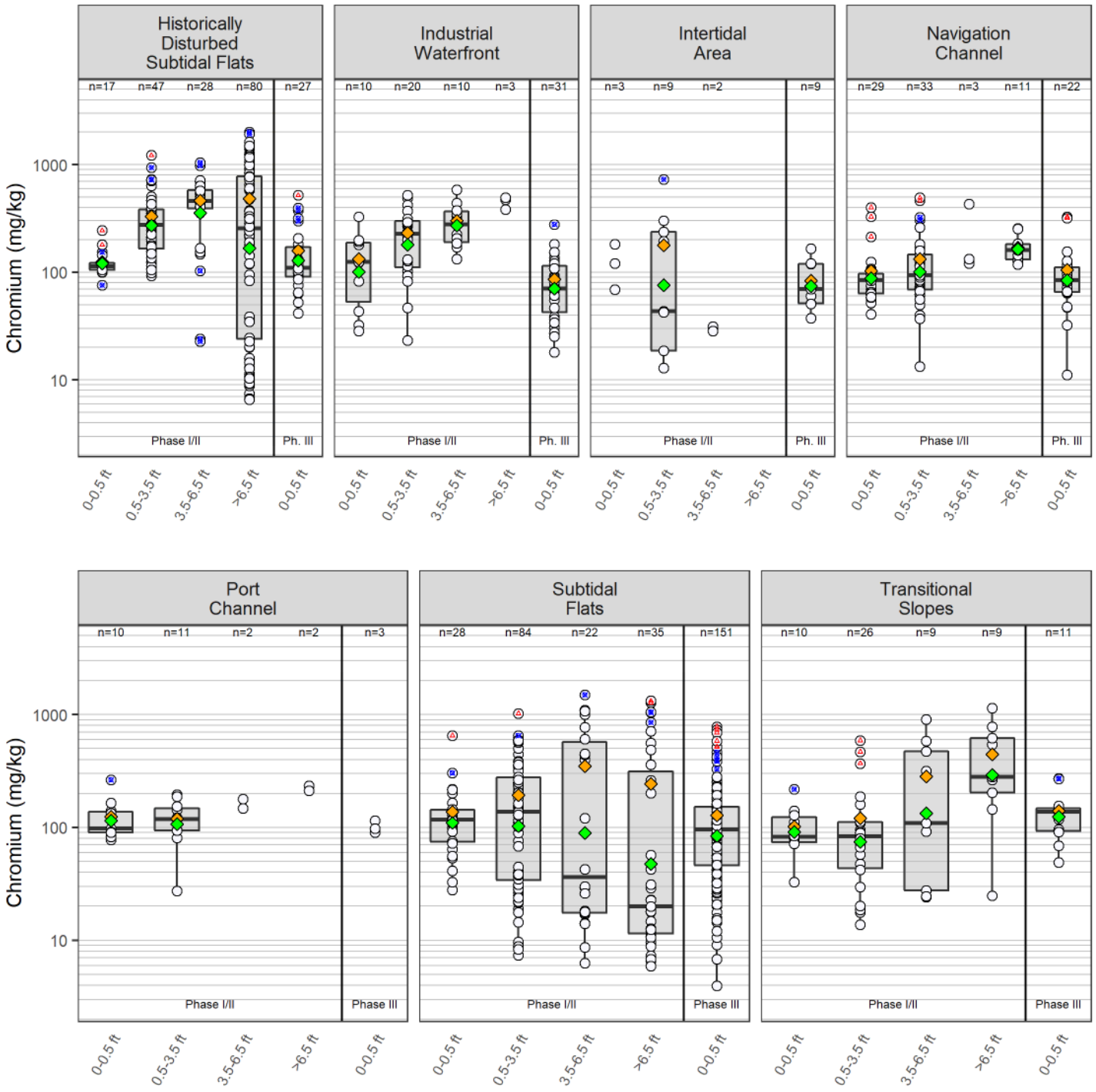
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

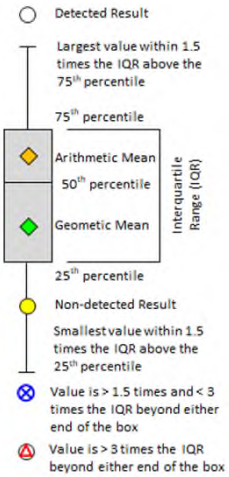
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - CADMIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-55





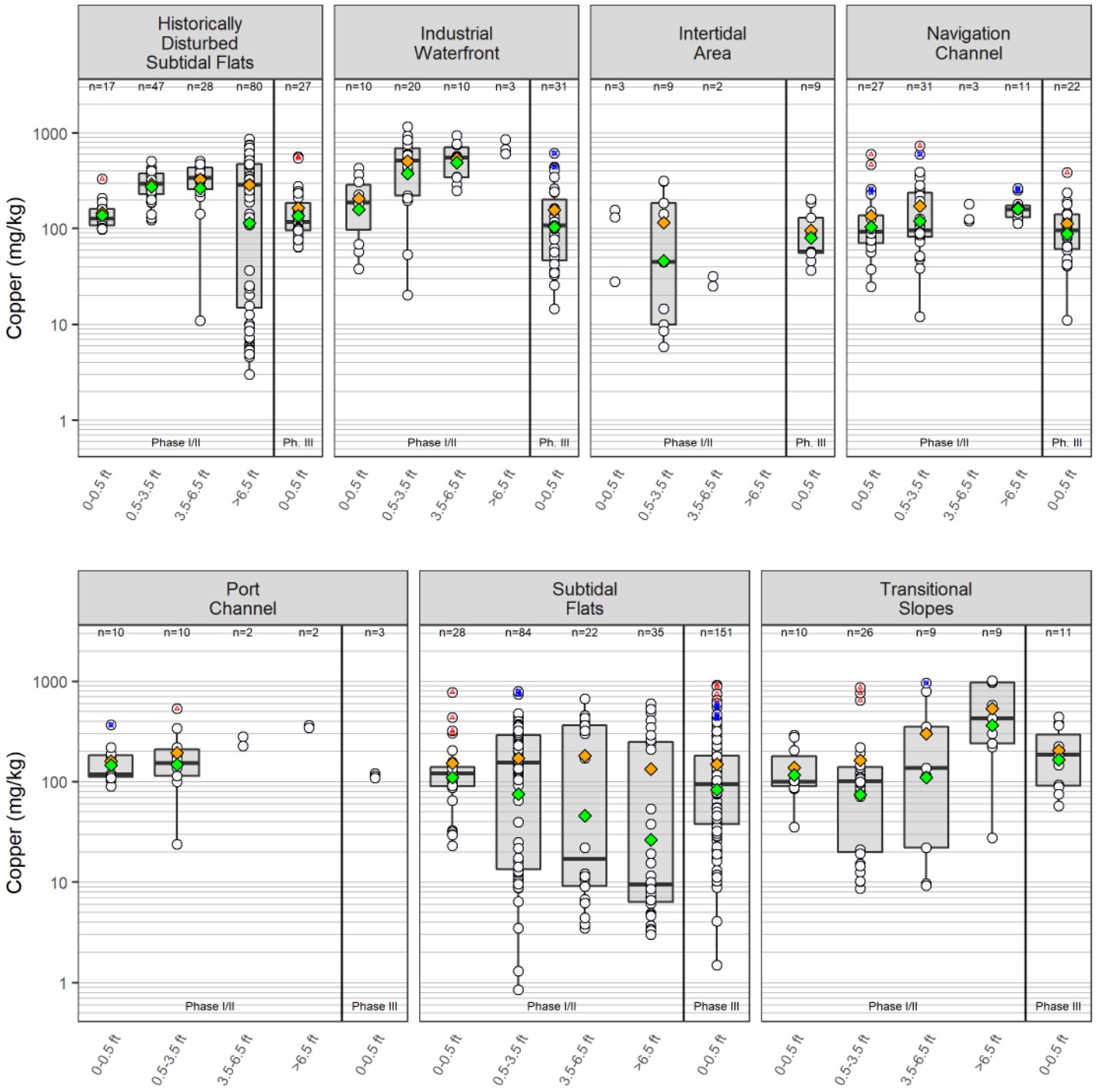
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - CHROMIUM

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-56



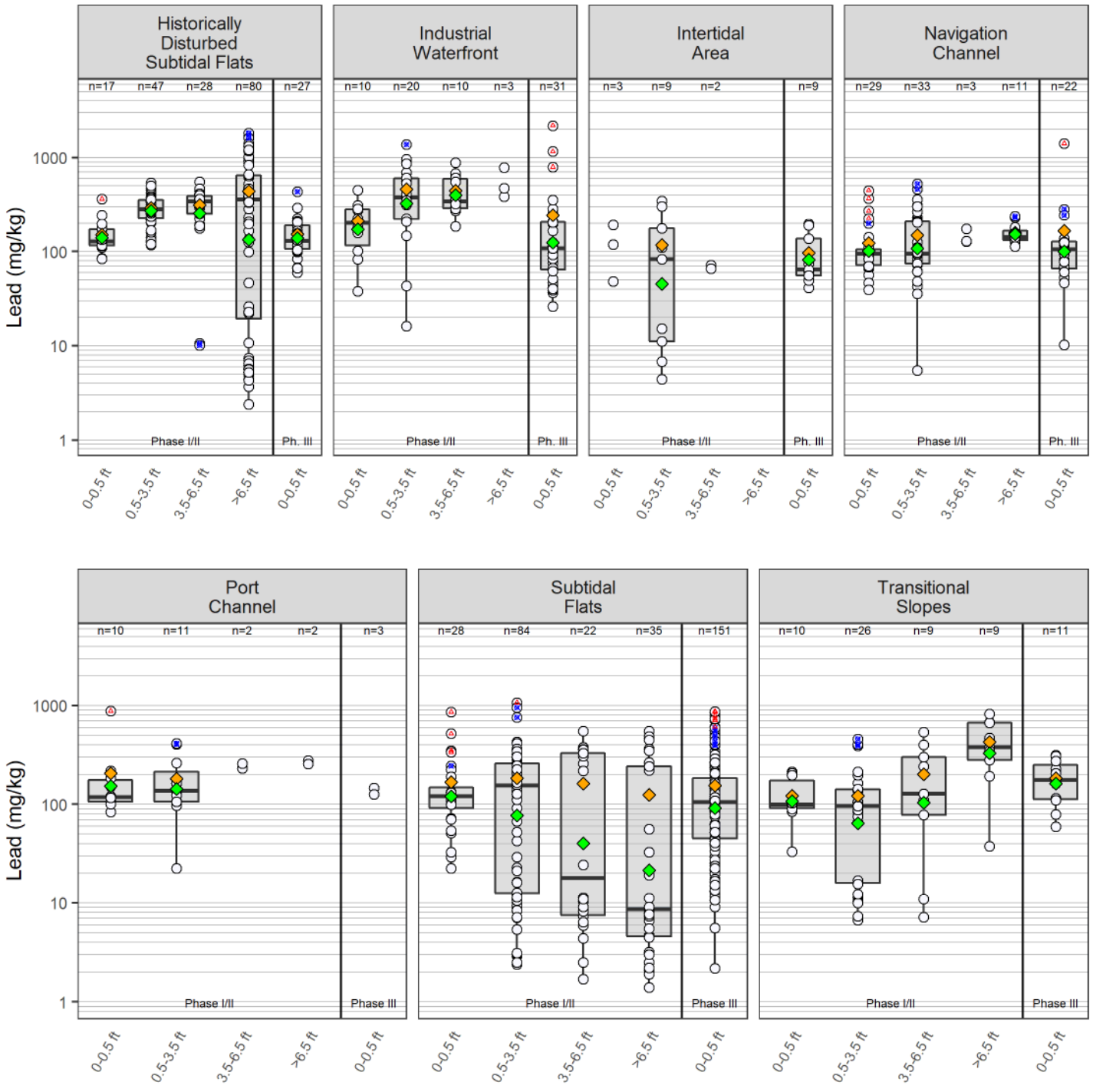
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

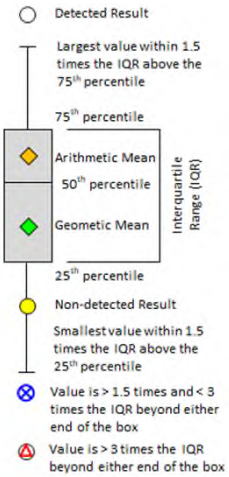
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - COPPER

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-57





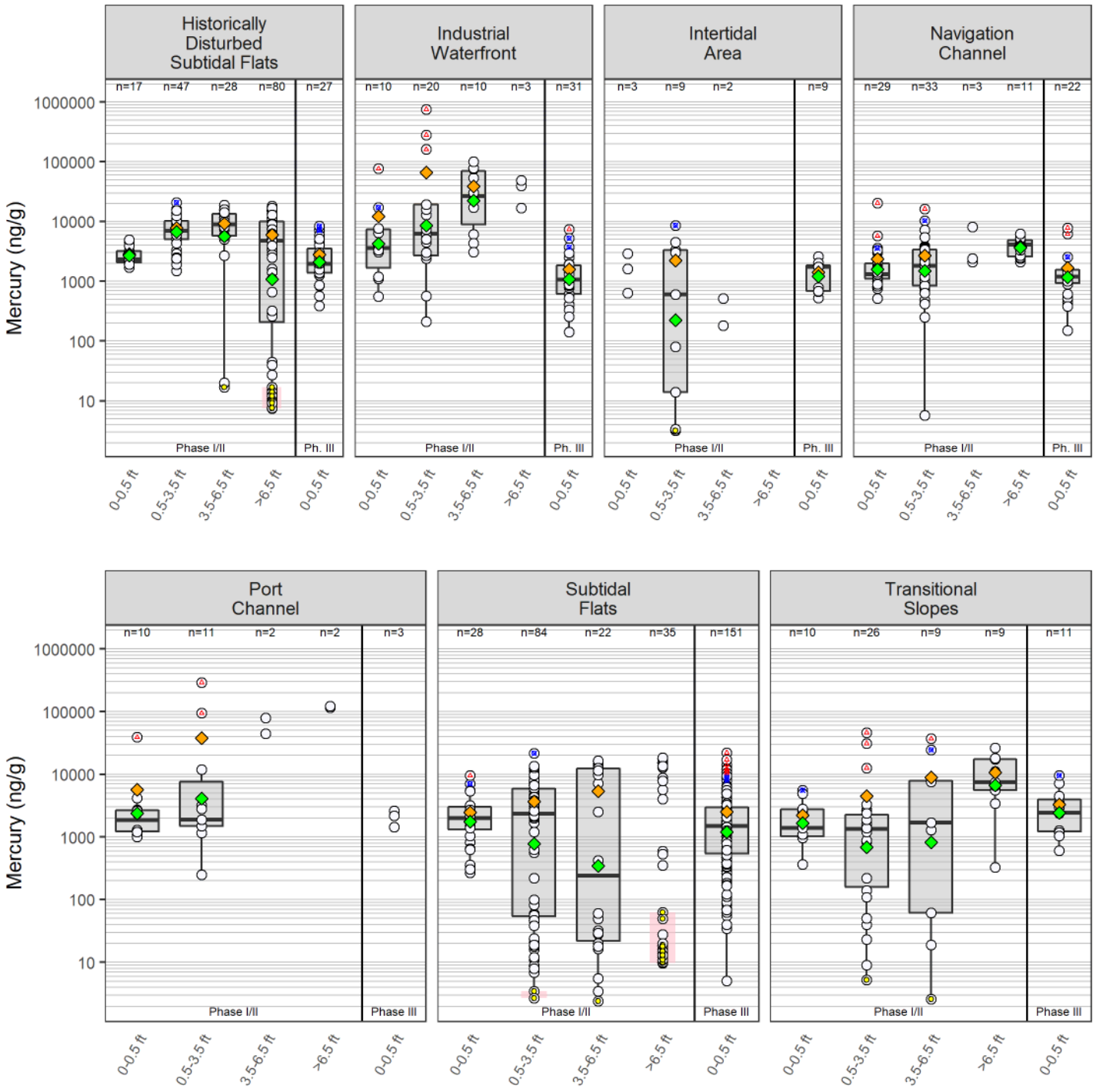
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

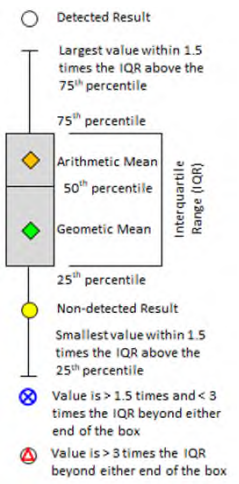
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - LEAD

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-58





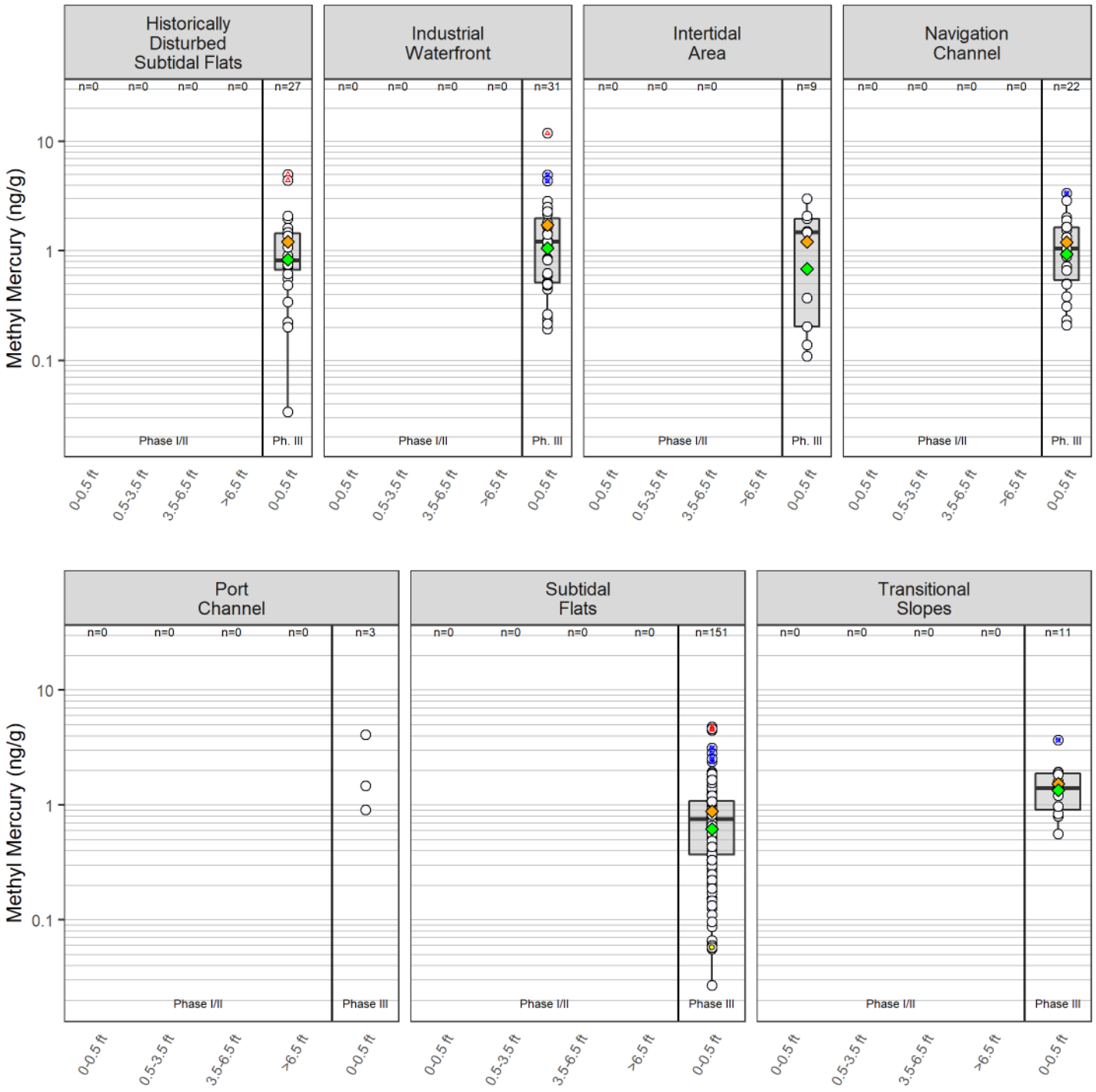
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

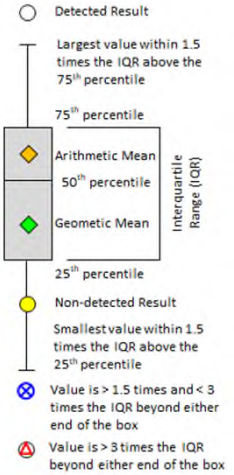
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - MERCURY

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-59





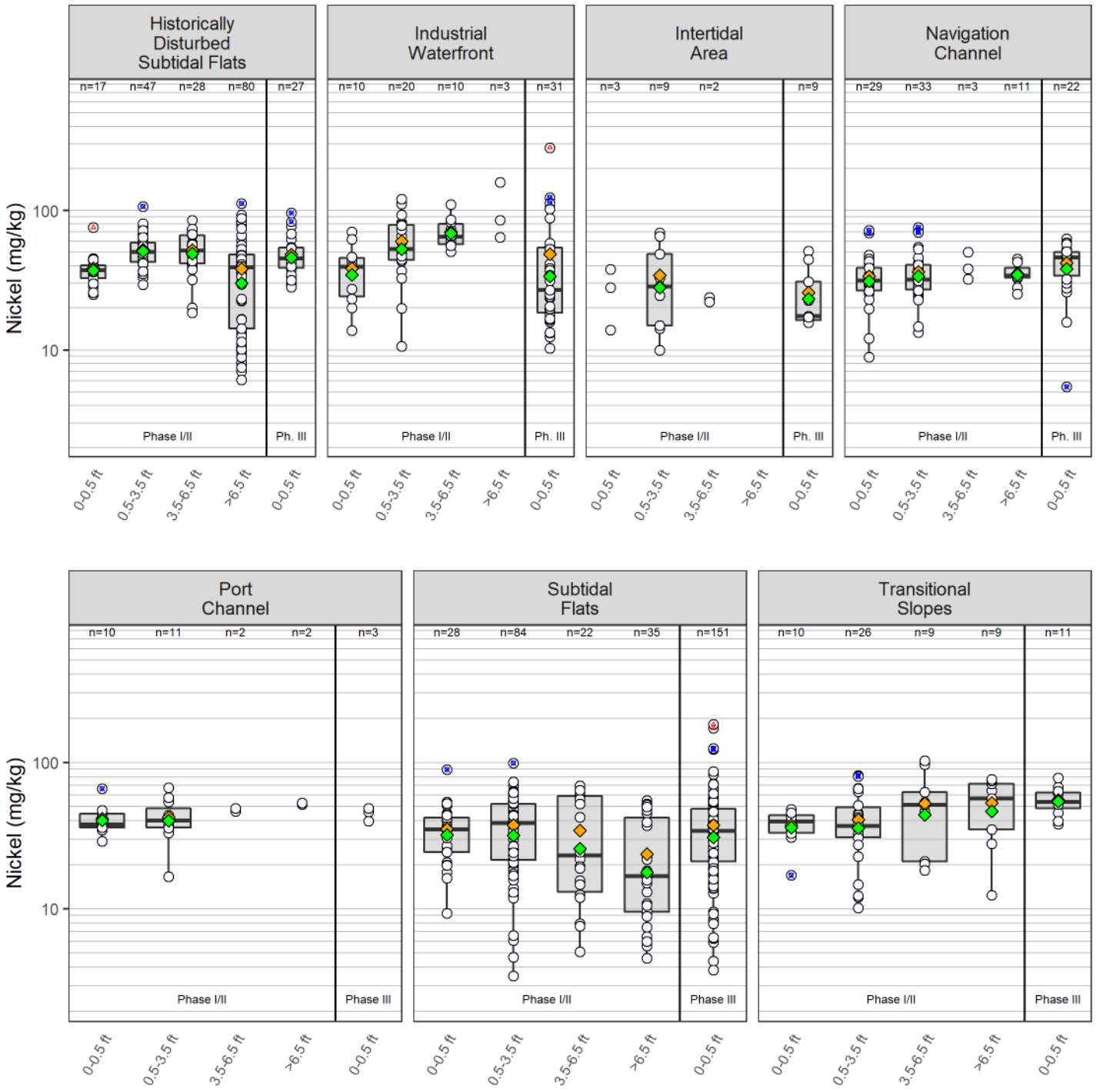
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Methyl mercury was not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

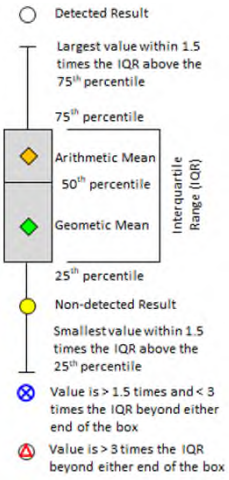
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - METHYL MERCURY

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-60





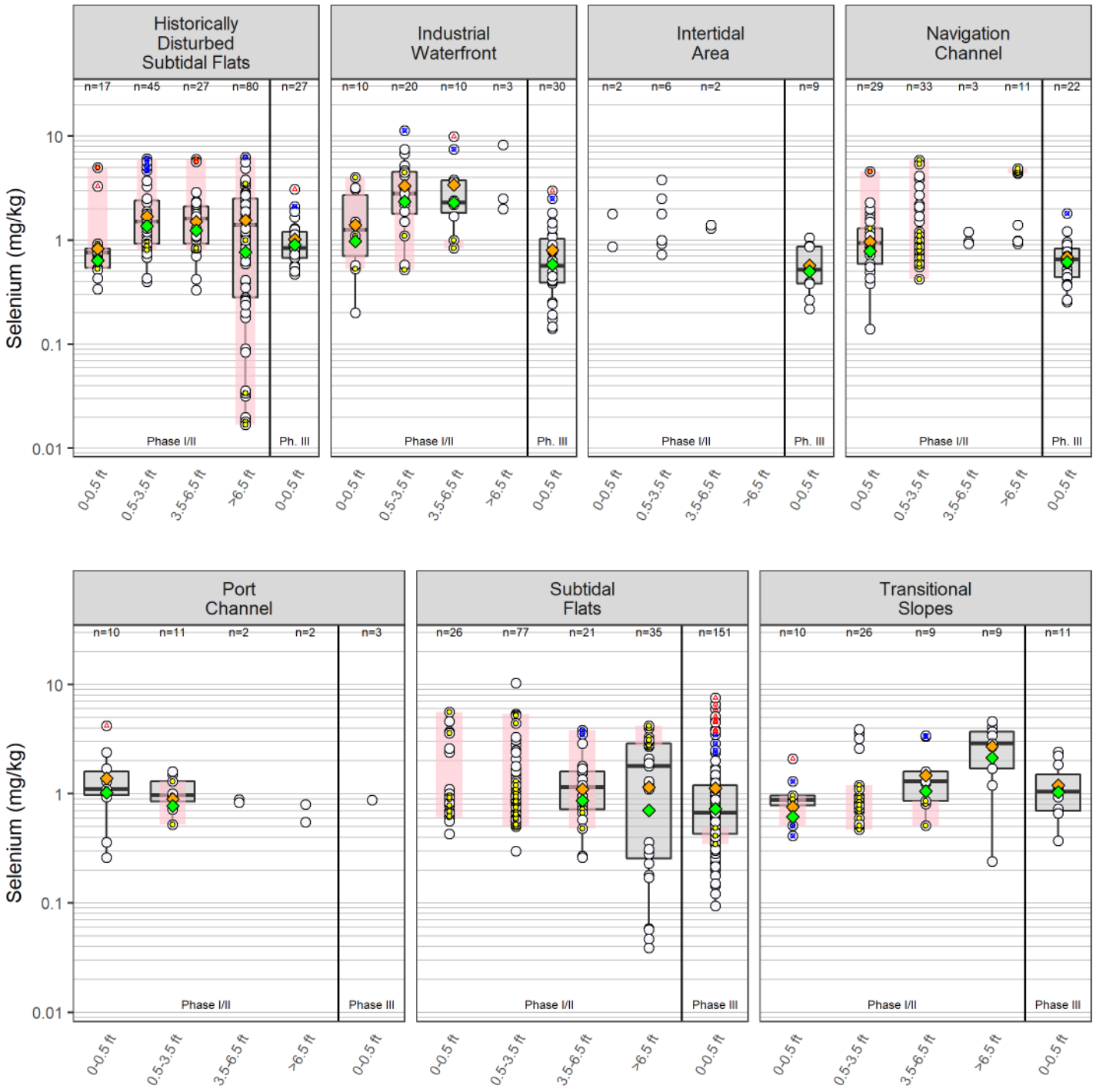
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

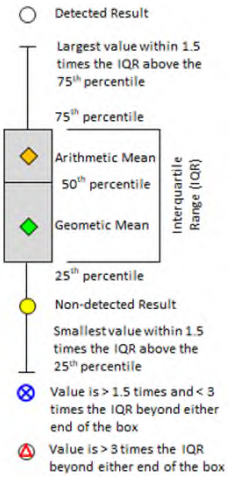
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - NICKEL

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-61





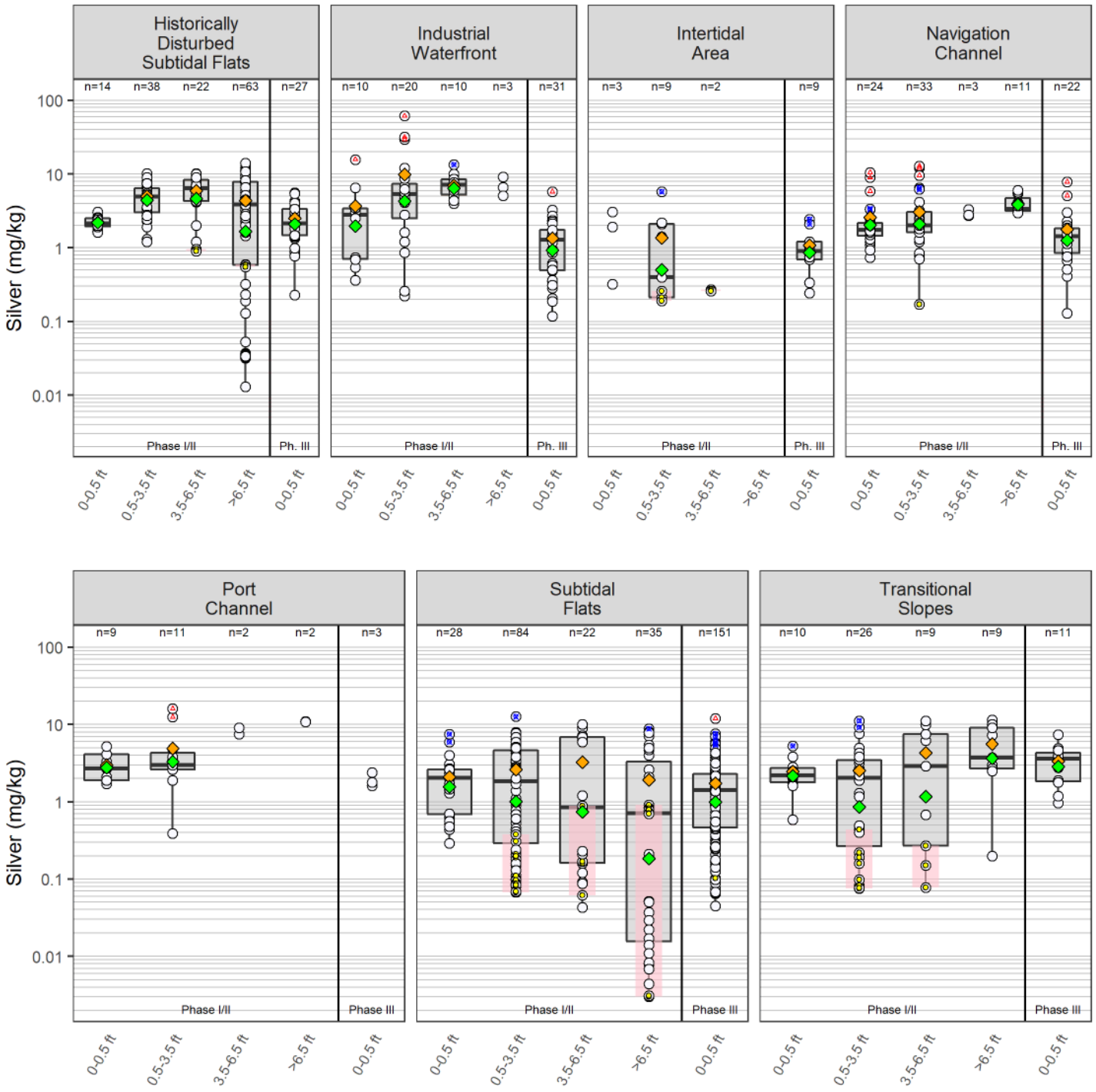
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

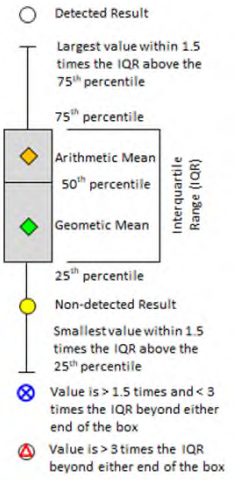
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - SELENIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-62





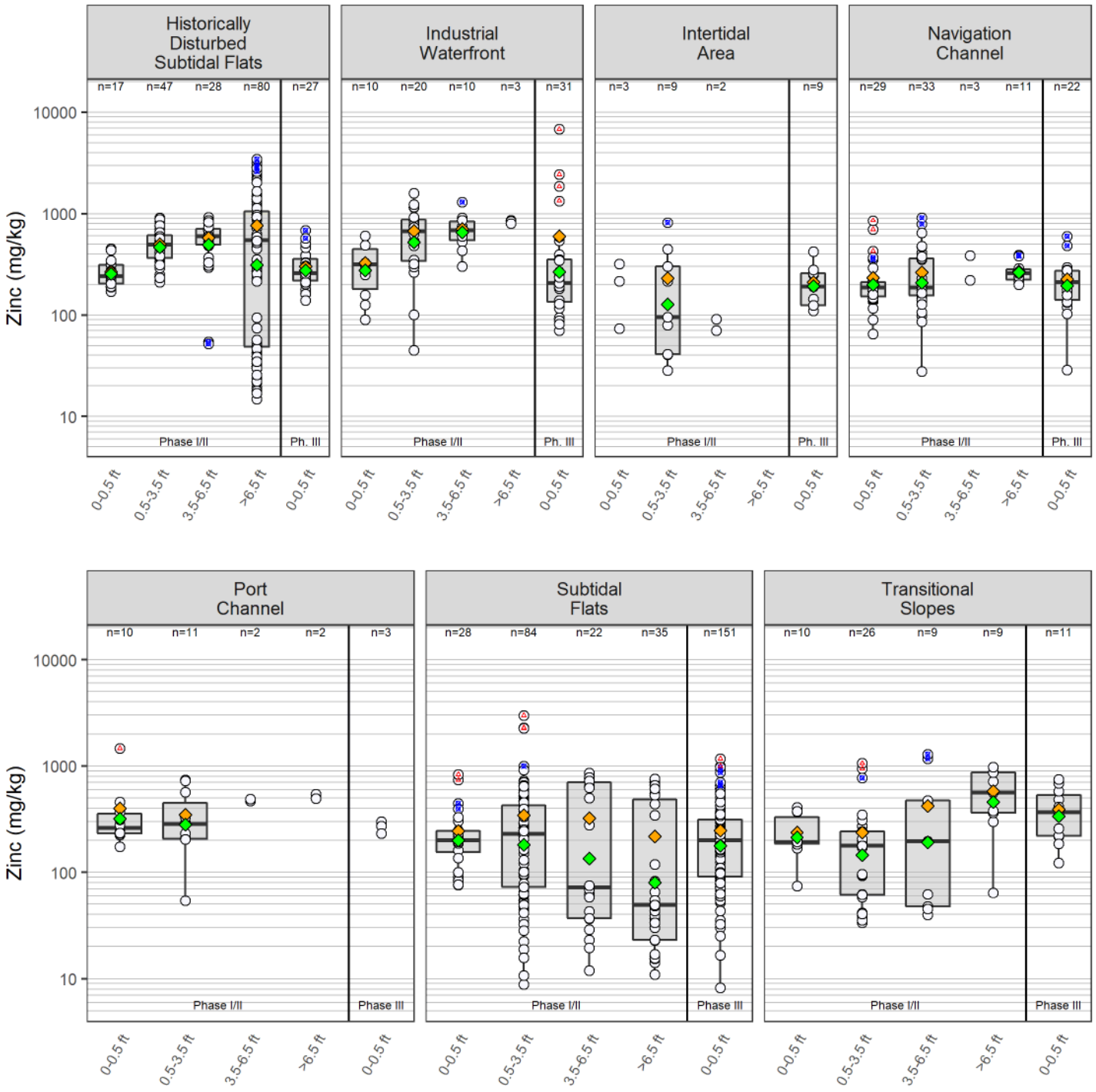
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

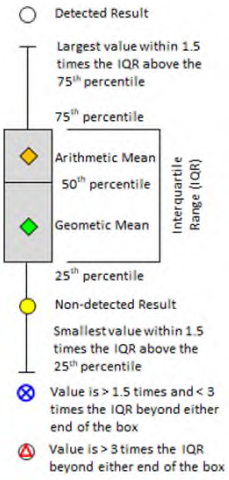
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - SILVER

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-63





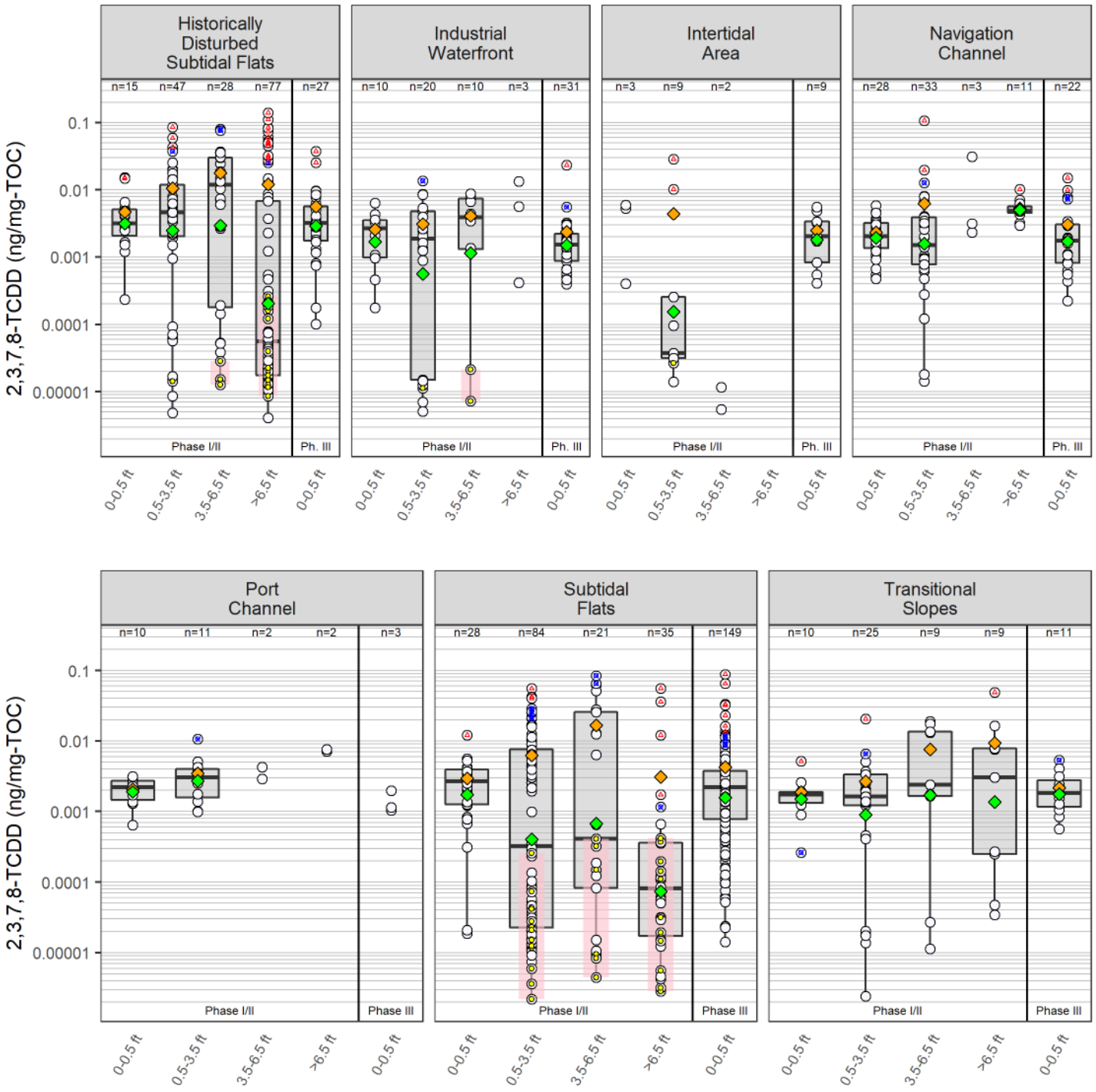
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

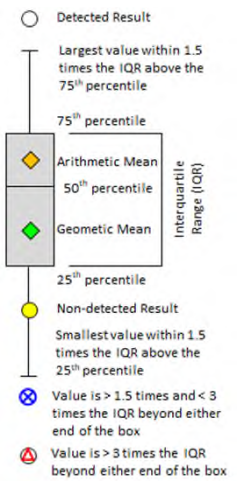
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - ZINC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-64





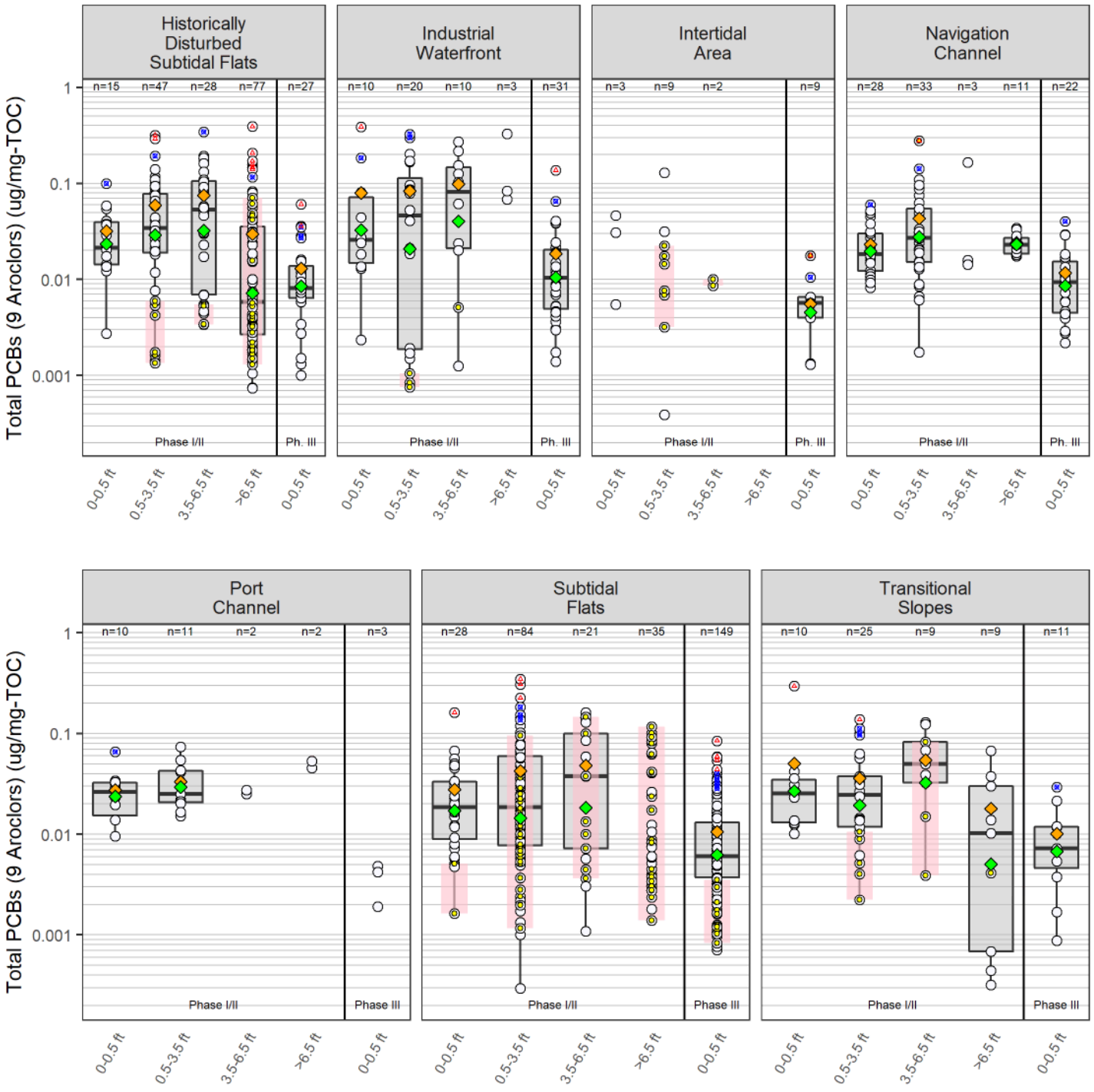
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - 2,3,7,8-TCDD-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-65



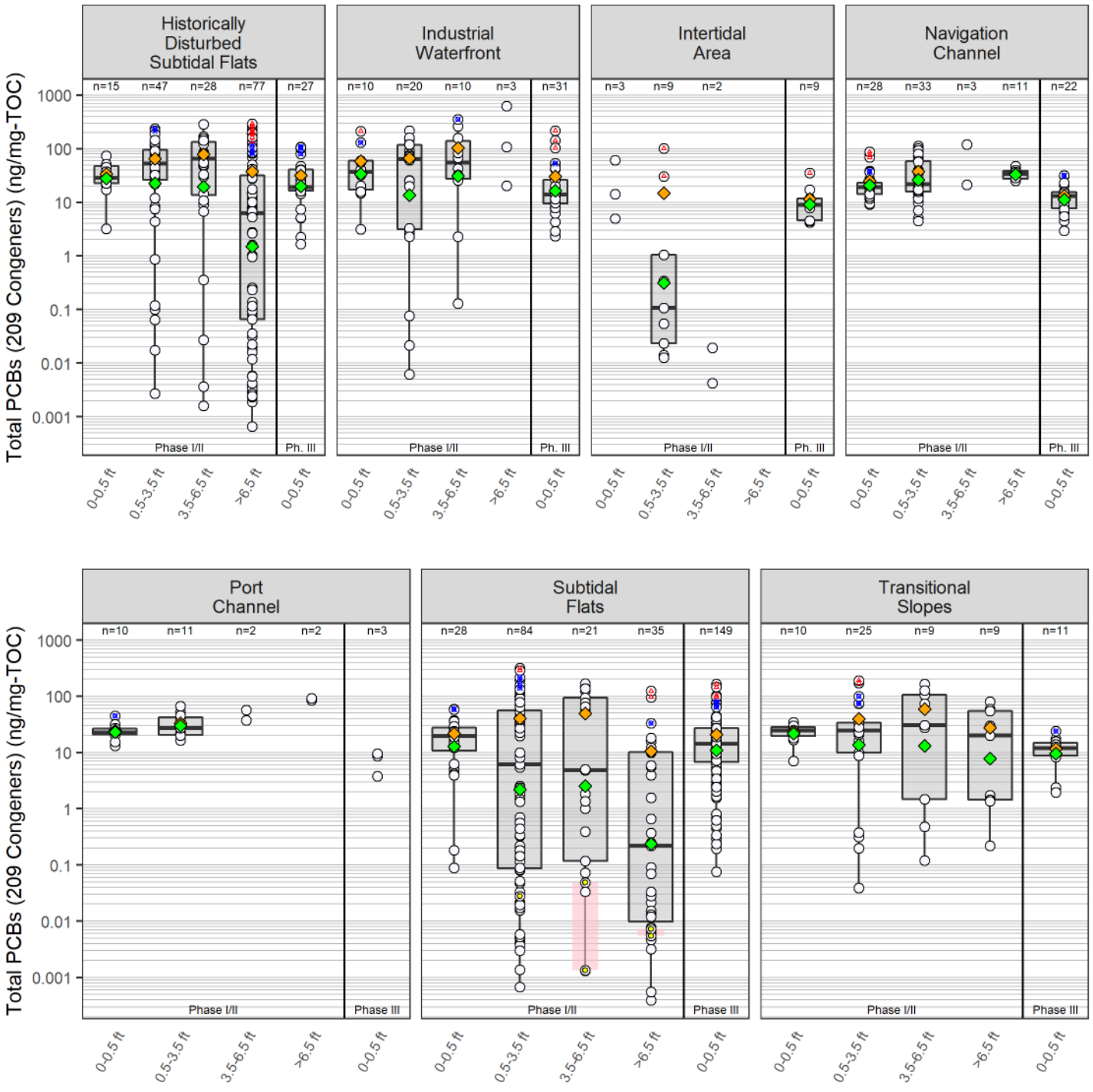
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

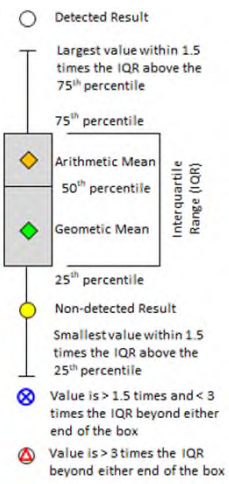
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL PCBS (9 AROCLORS)-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-66





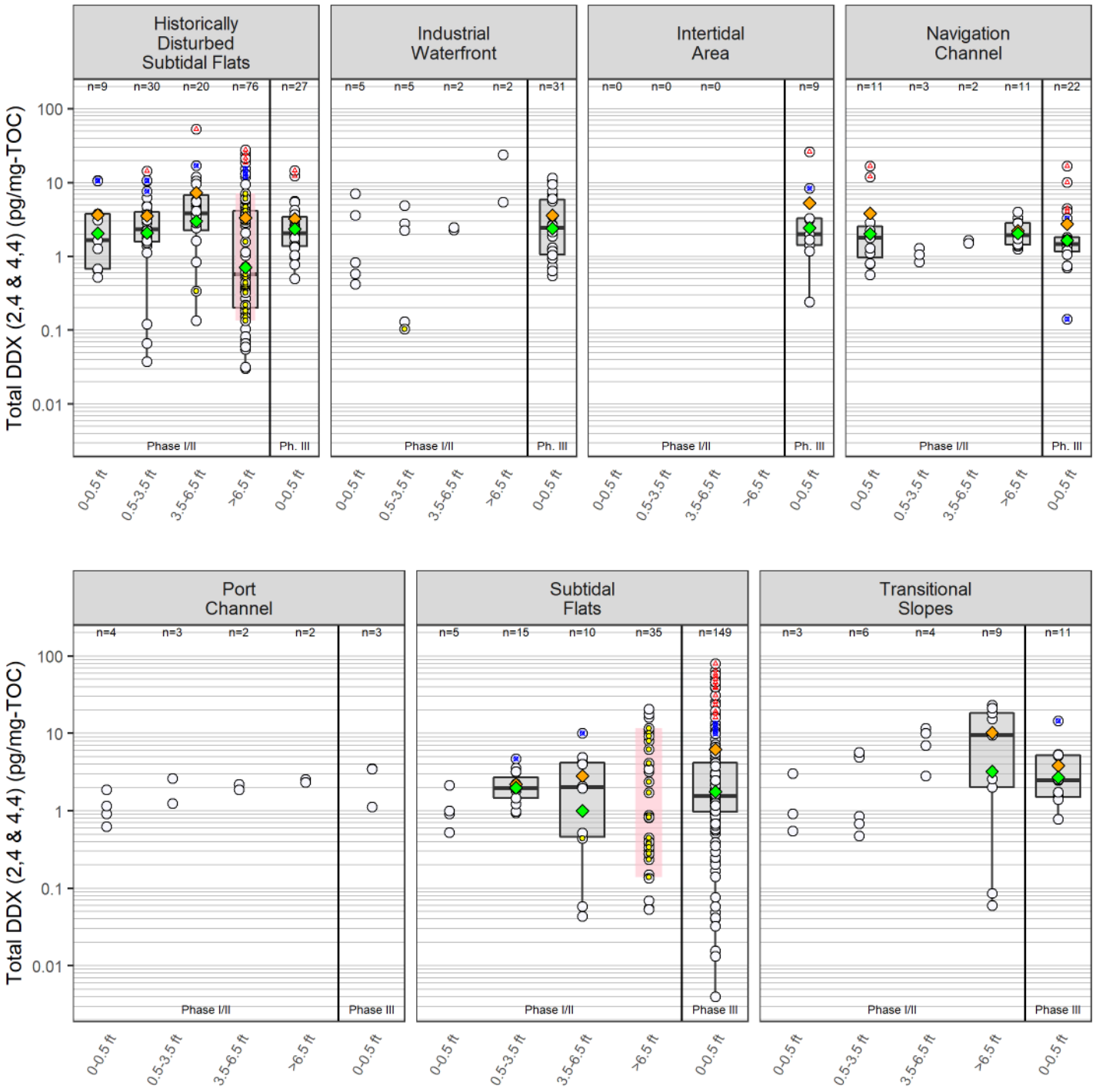
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

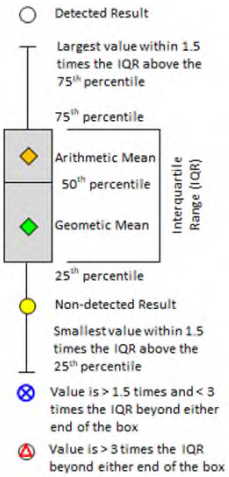
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL PCB (209 CONGENERS)-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-67





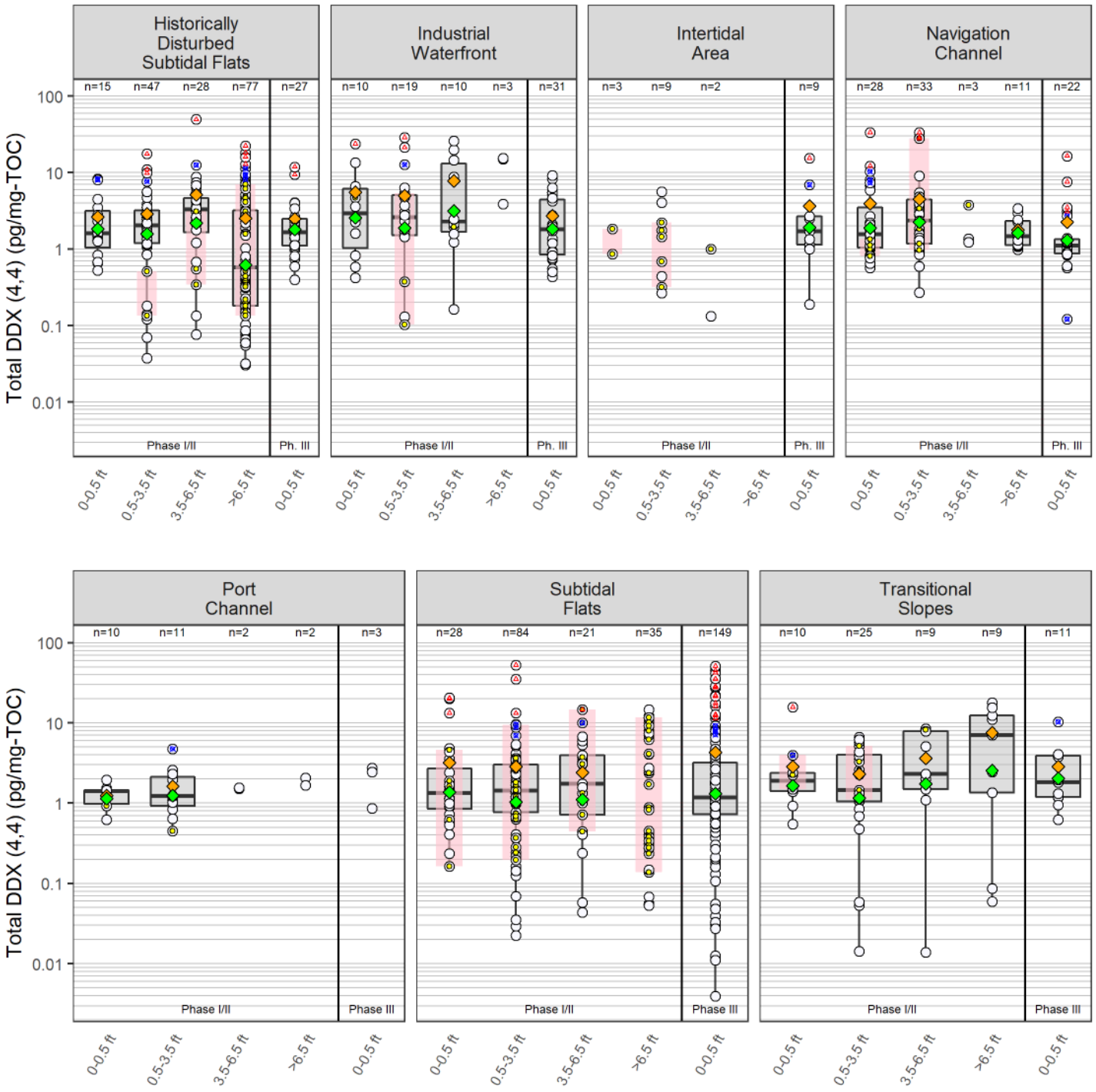
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

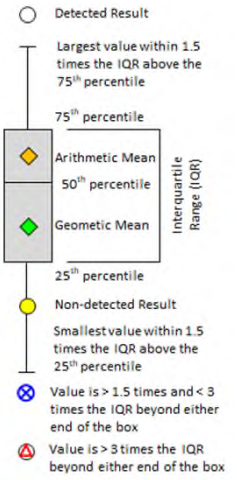
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL DDX (2,4 & 4,4)-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-68





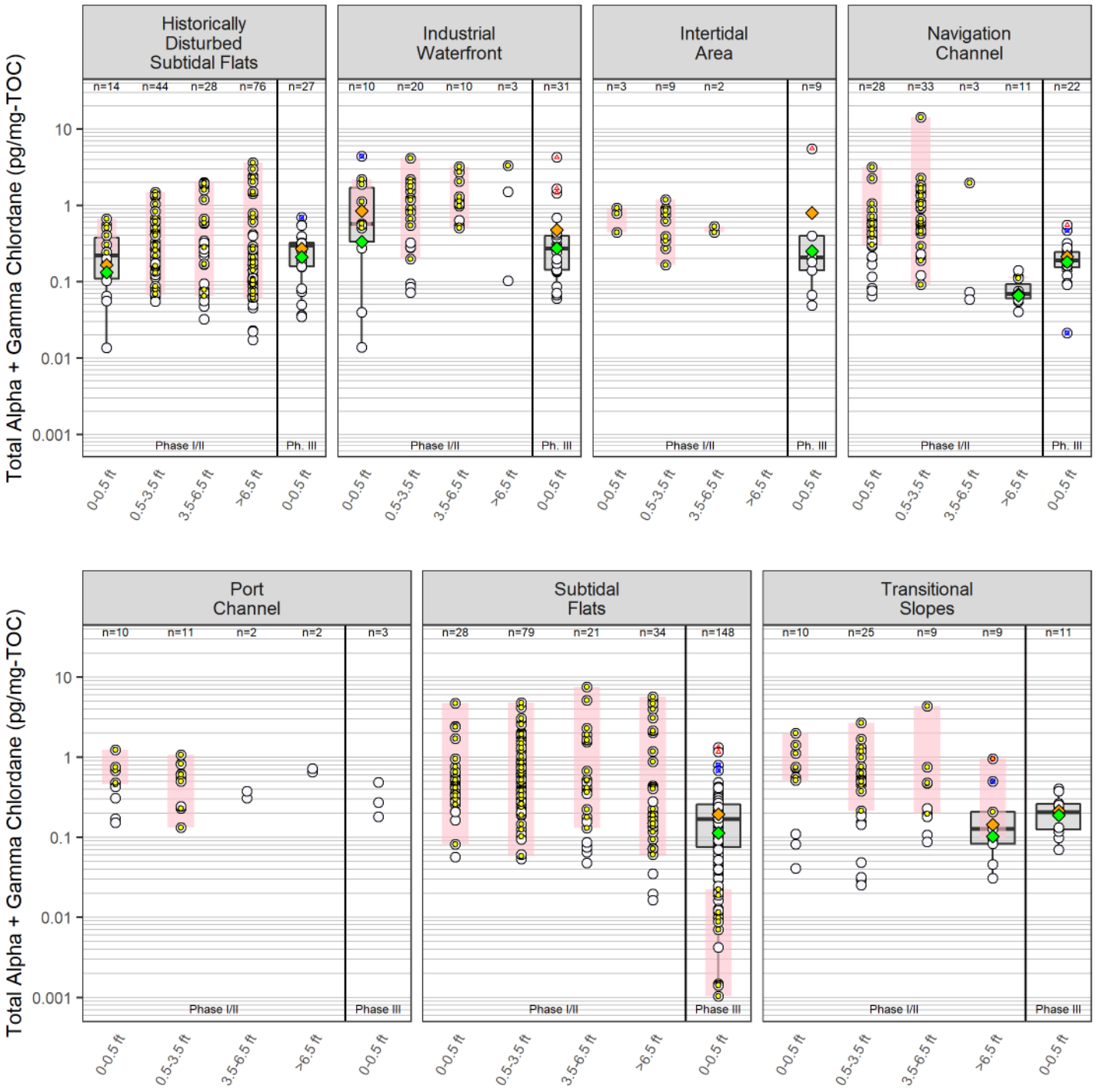
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

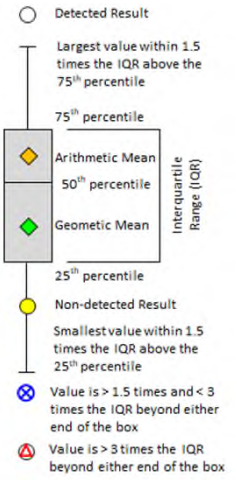
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL DDX (4,4)-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-69





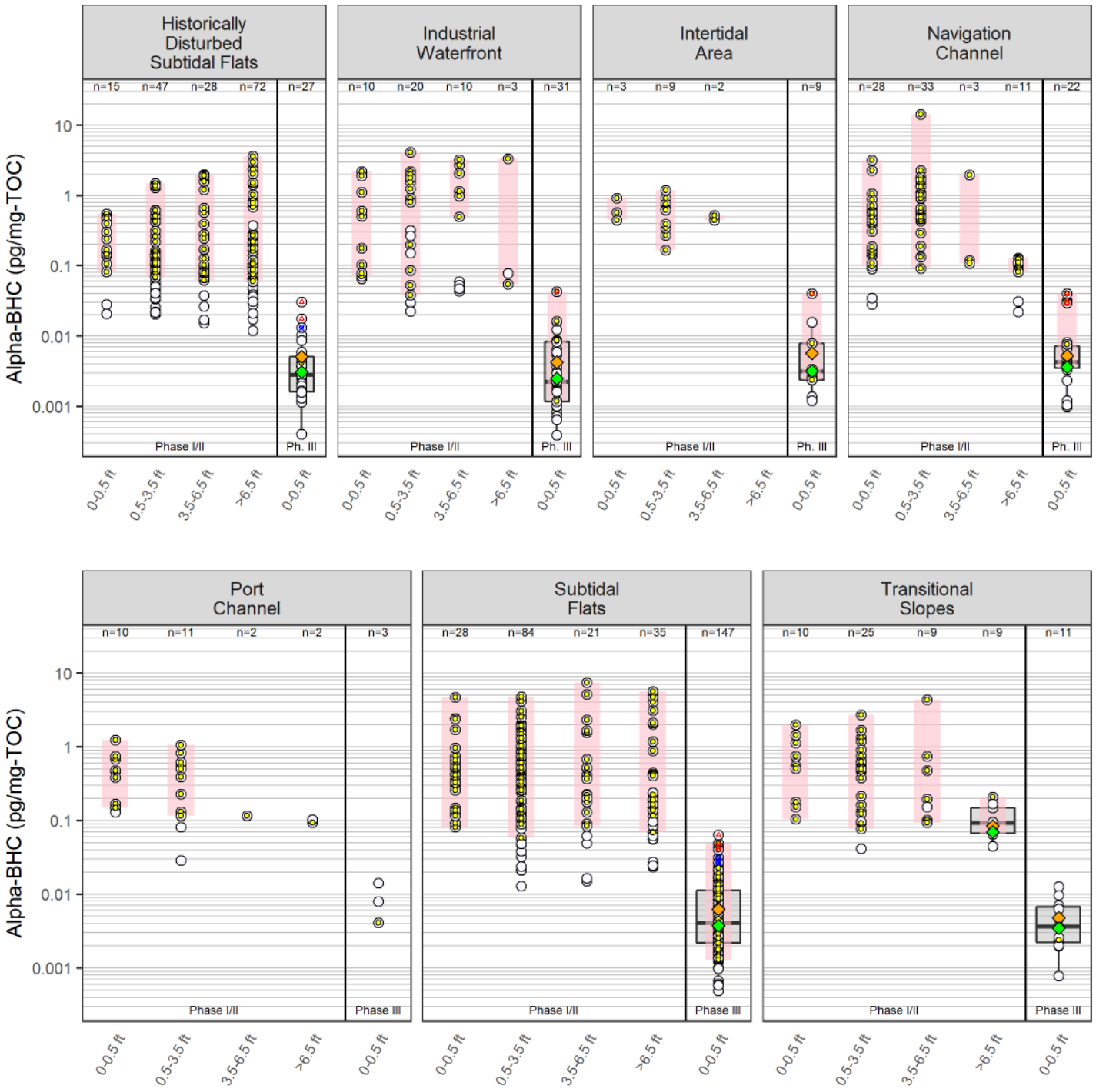
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL ALPHA + GAMMA CHLORDANE-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-70



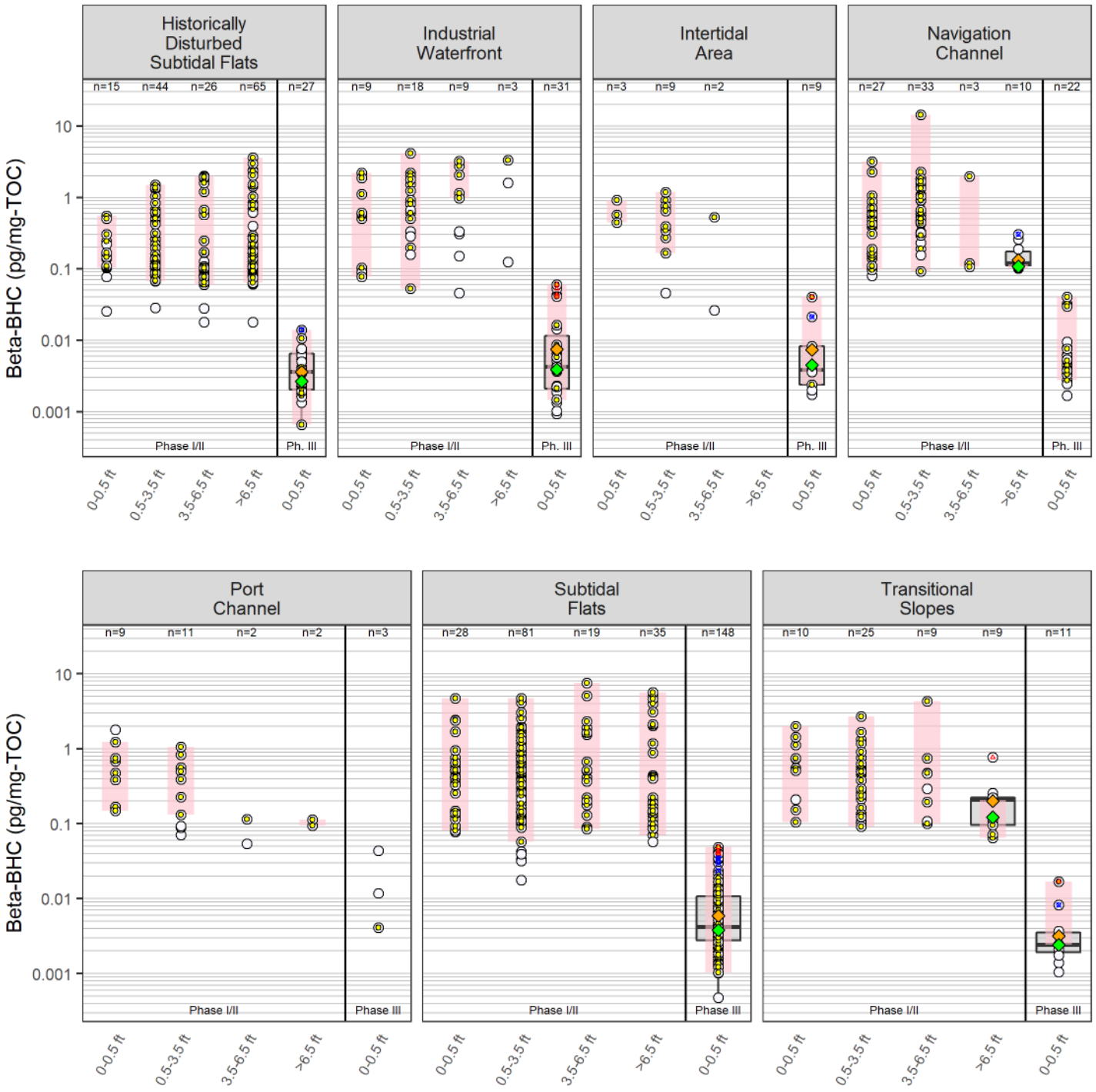
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

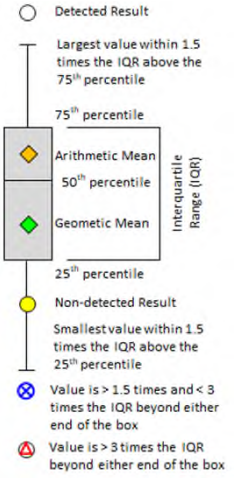
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - ALPHA-BHC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-71





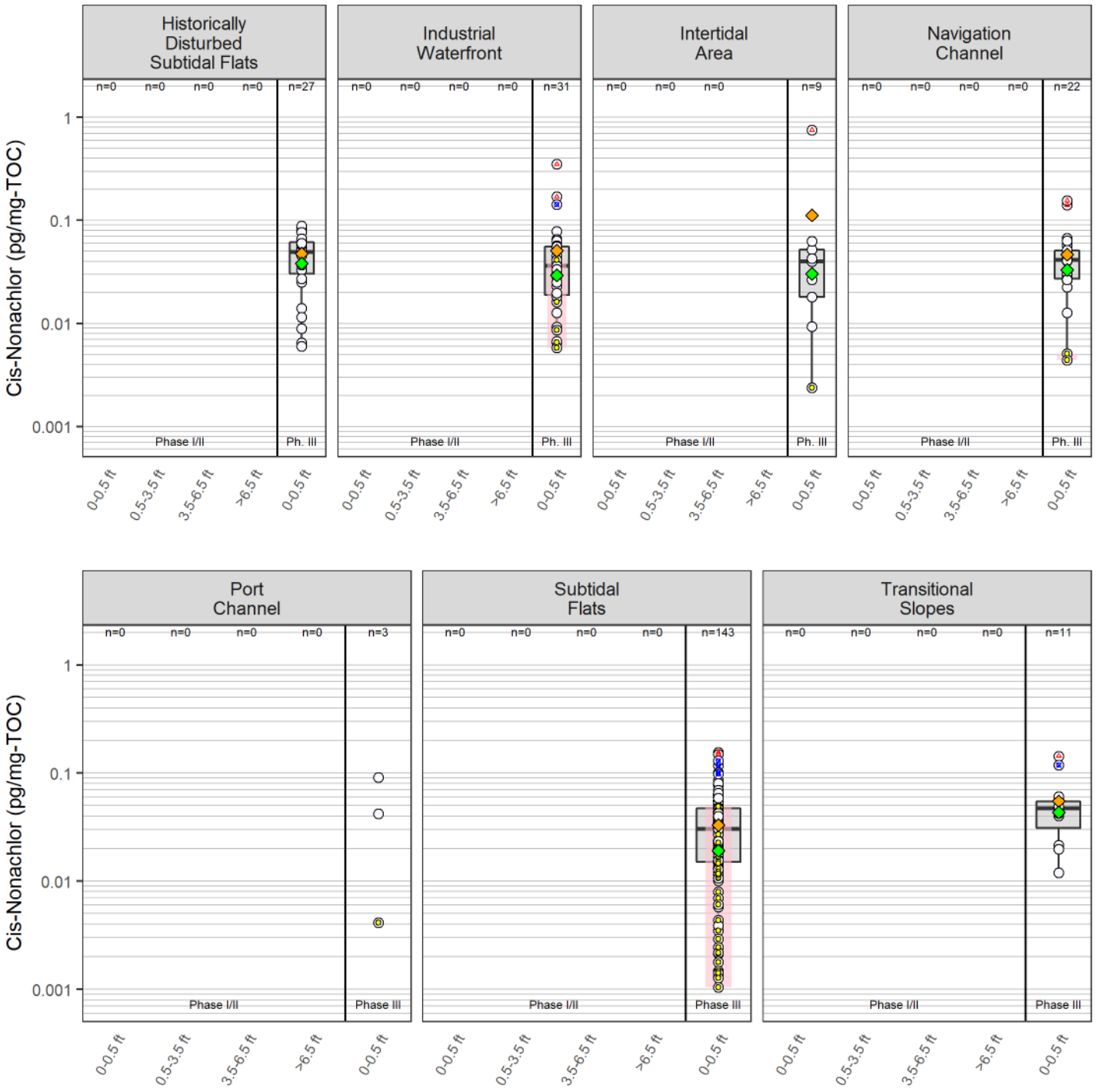
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

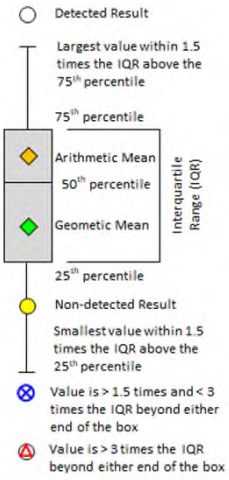
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - BETA-BHC-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-72





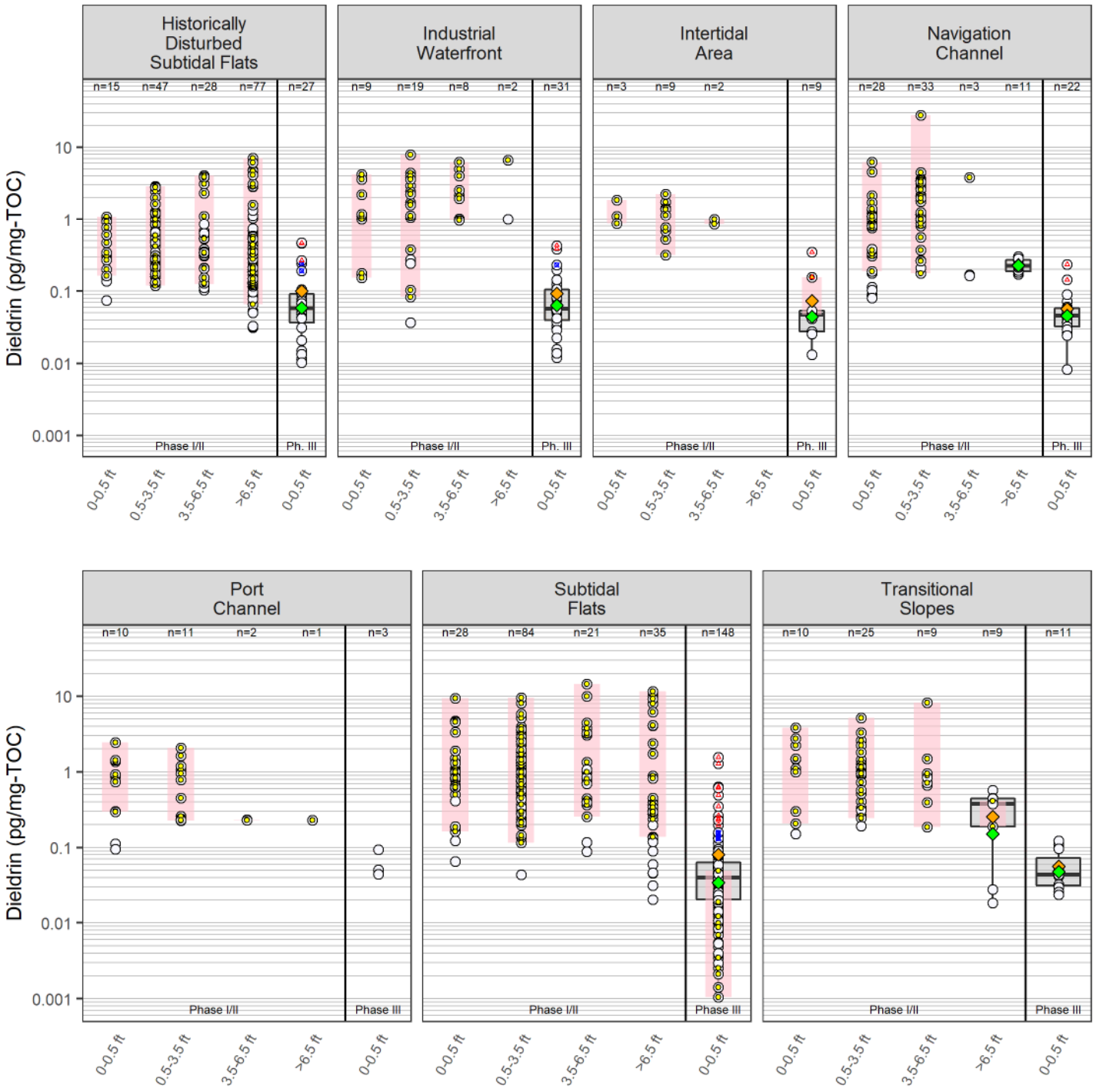
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
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Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - CIS-NONACHLOR-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-73



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

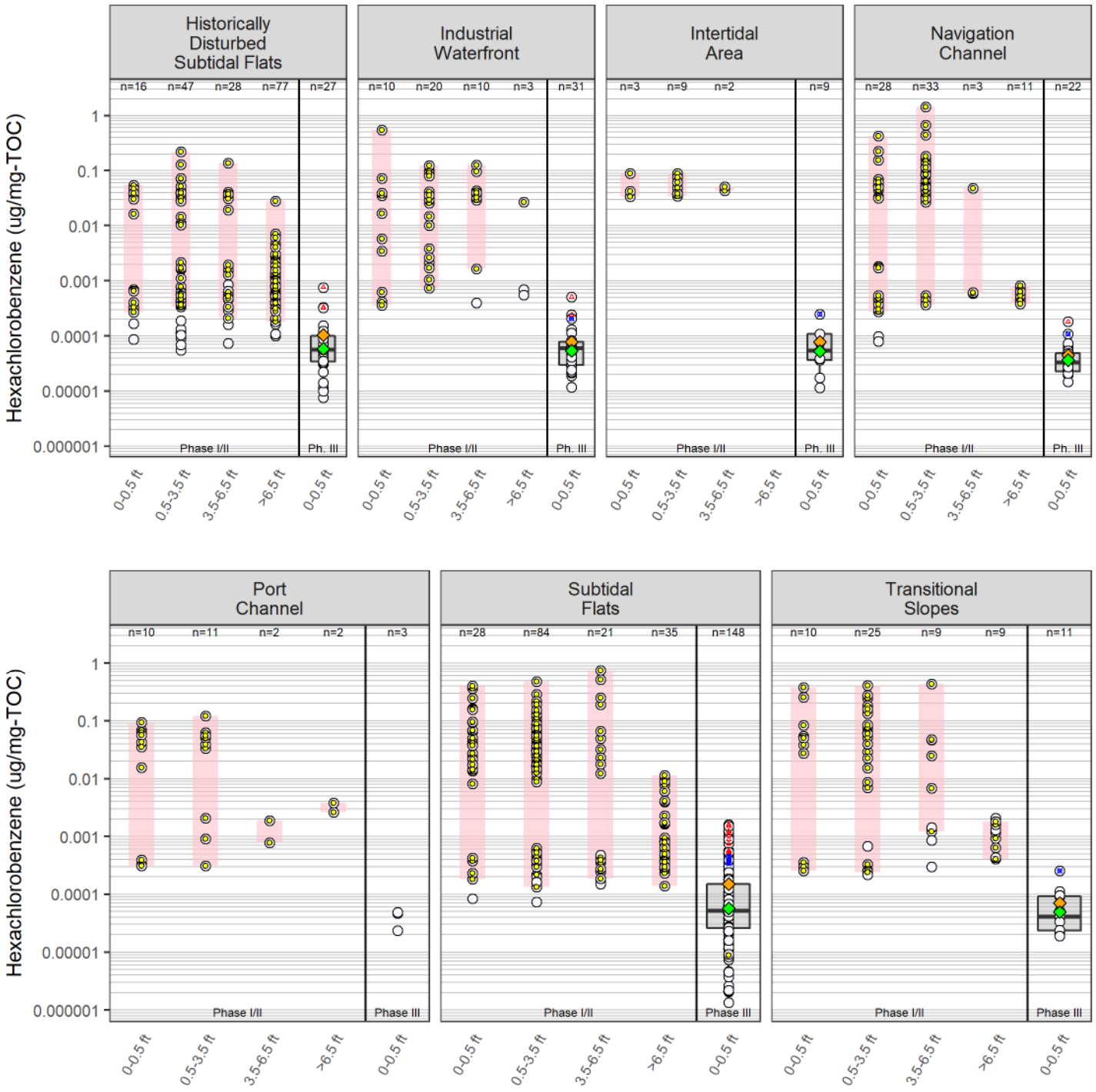
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

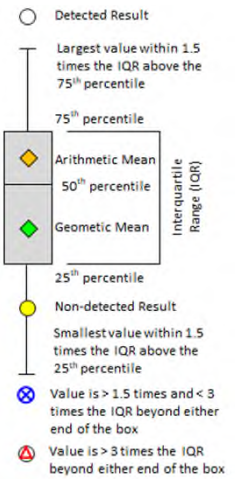
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - DIELDRIN-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-74





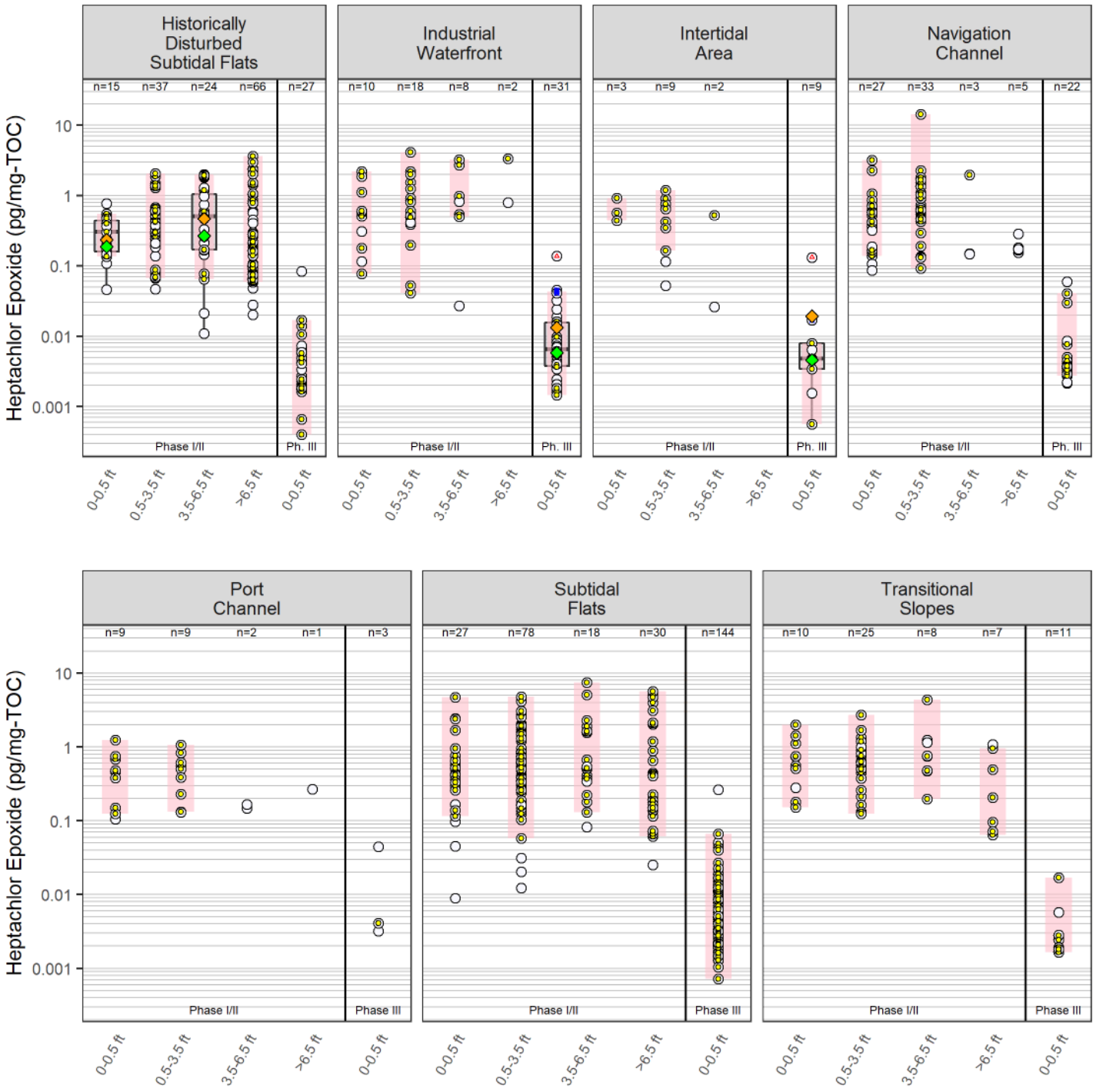
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Hexachlorobenzene was analyzed as a semi-volatile organic compound in Phase I/II and as a pesticide in Phase III. All Phase I results were non-detect.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

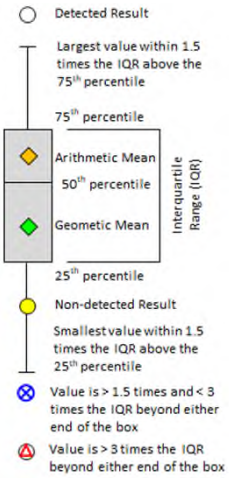
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - HEXACHLOROBENZENE-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-75





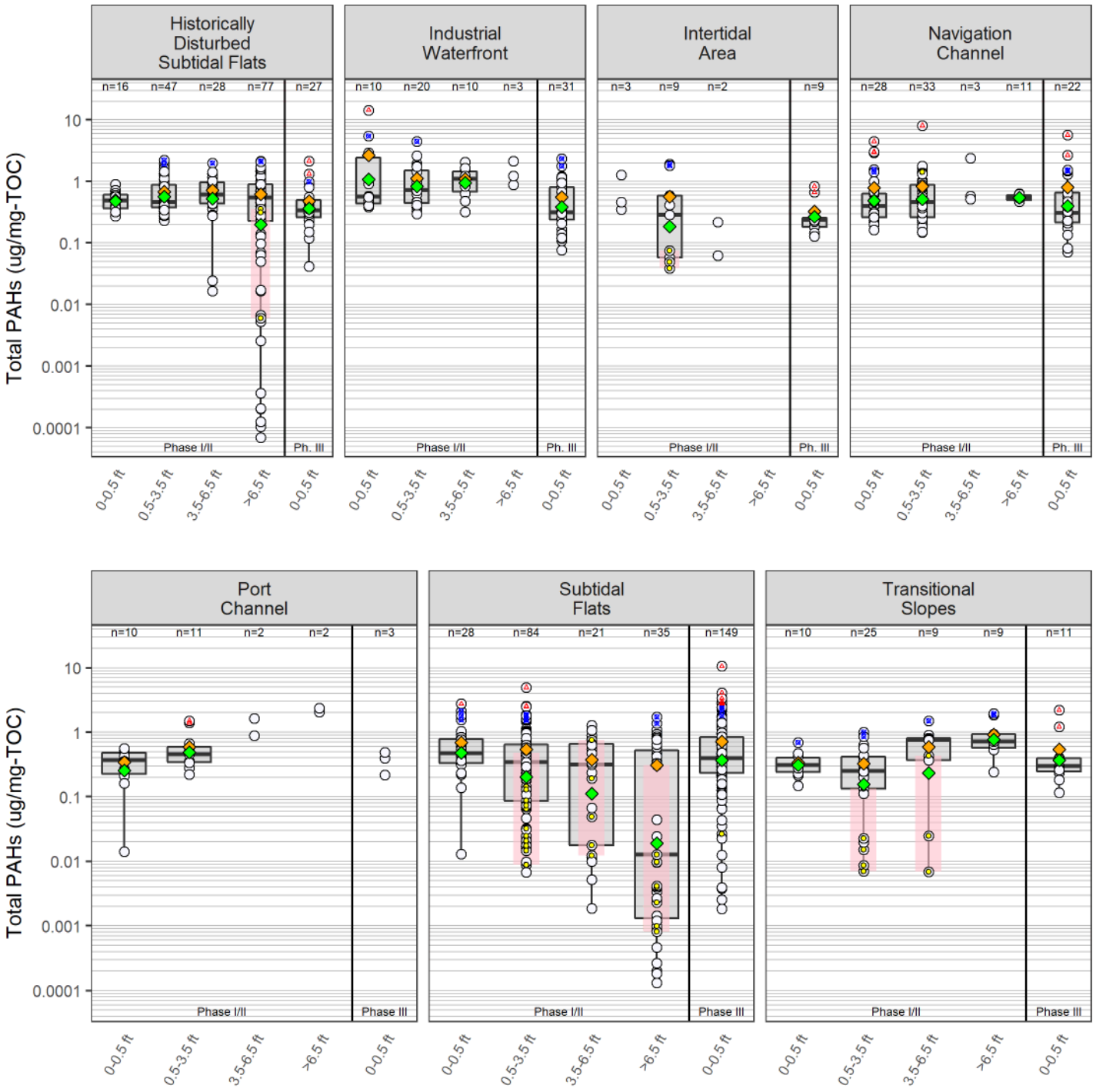
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - HEPTACHLOR EPOXIDE-NORMALIZED

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FIGURE
F-76



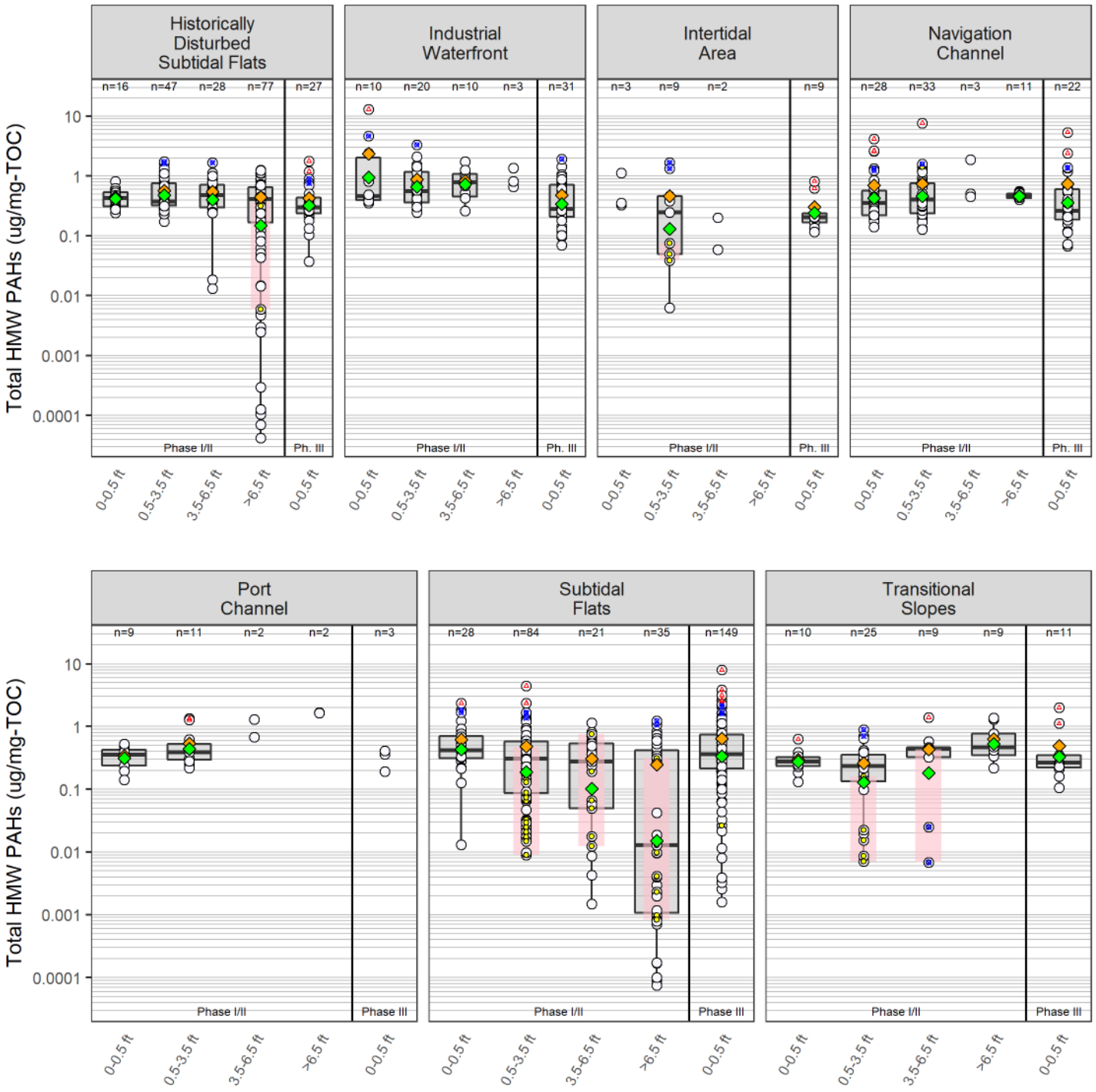
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

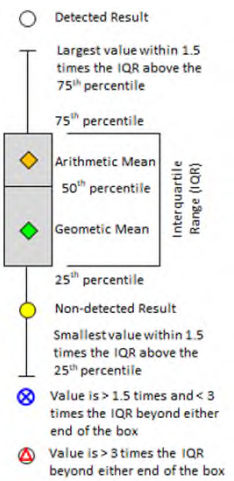
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-77





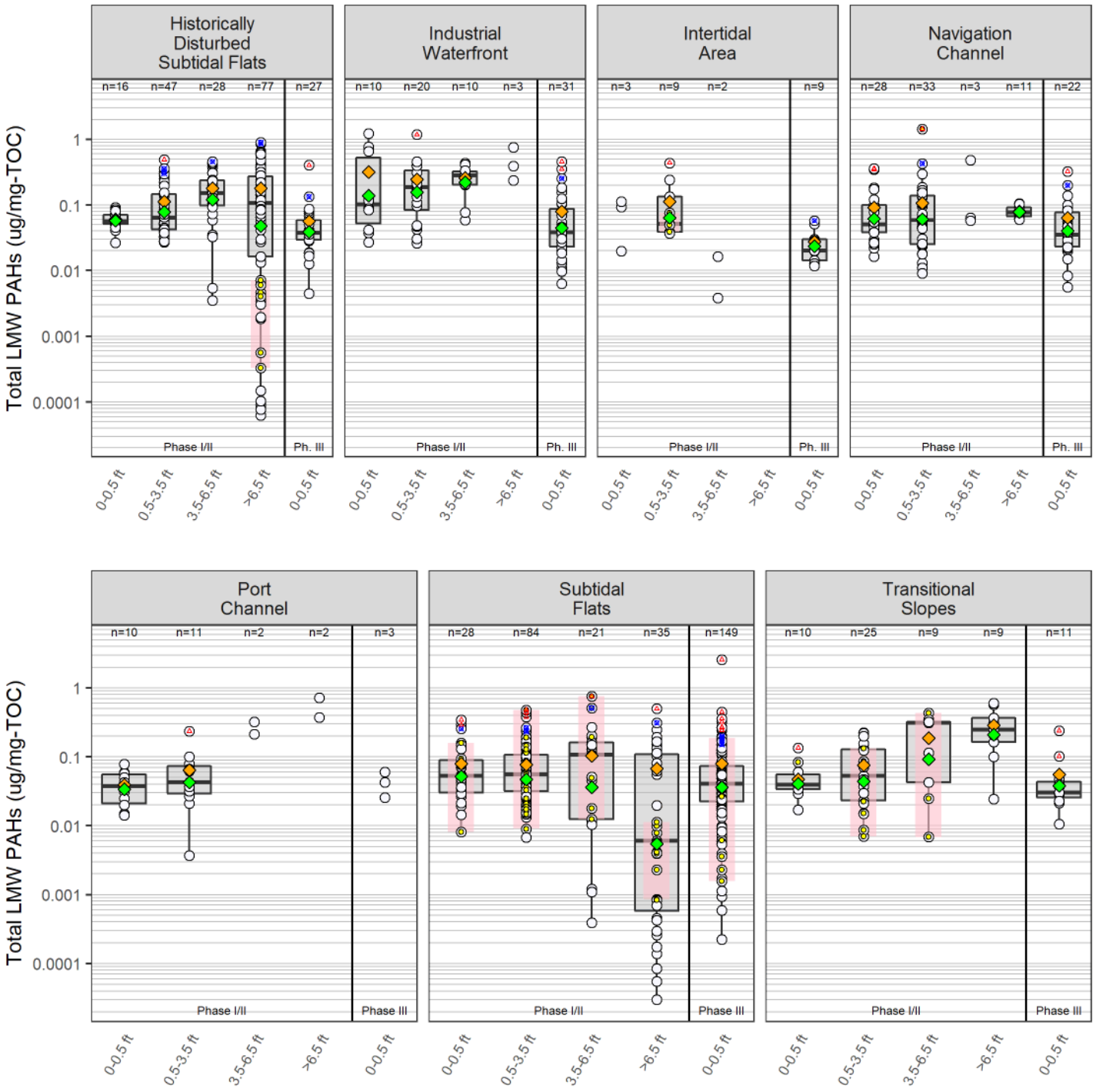
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL HMW PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-78



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

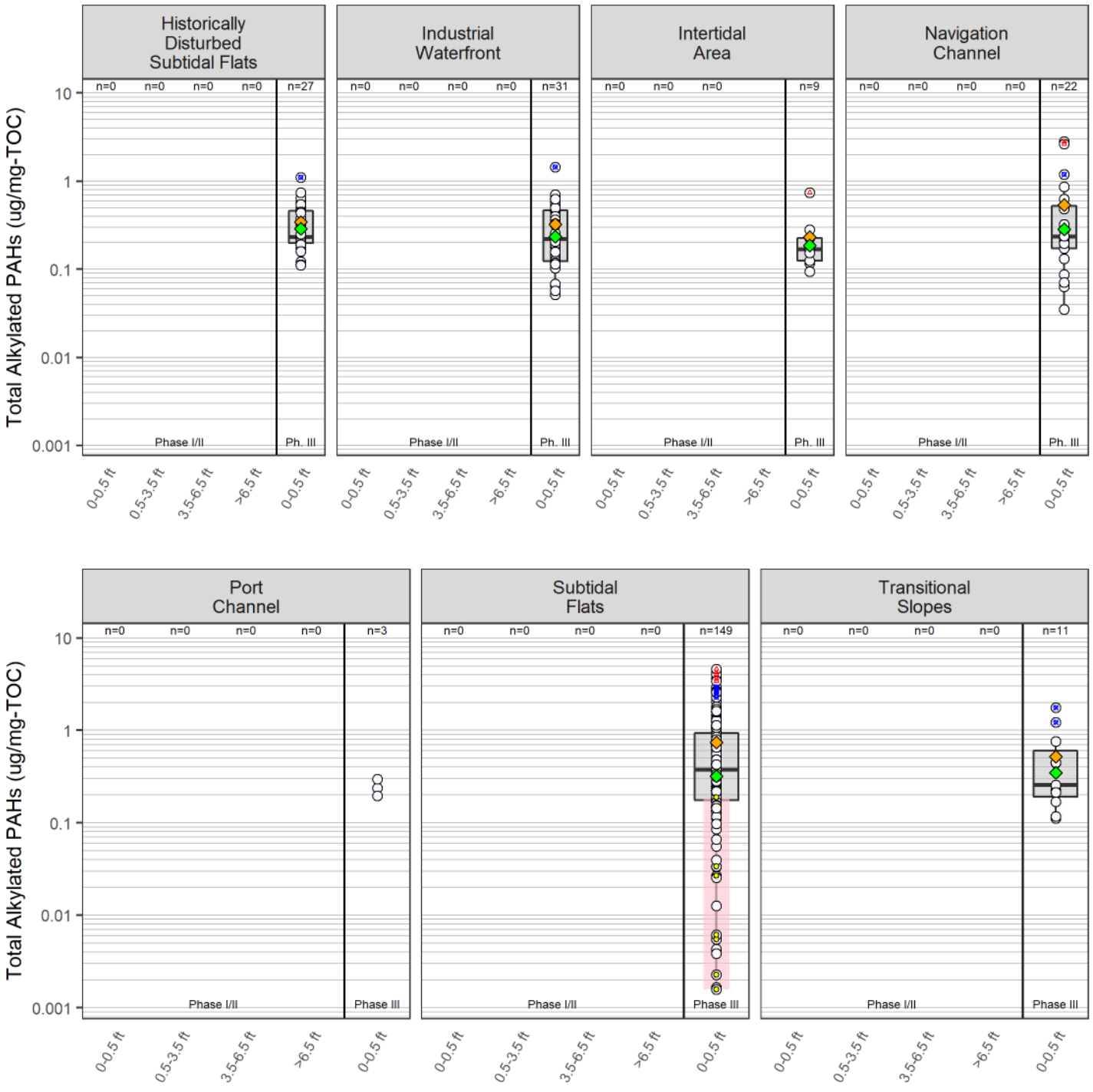
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

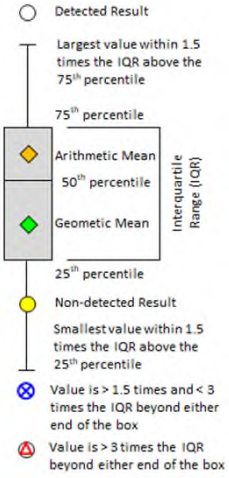
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL LMW PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-79





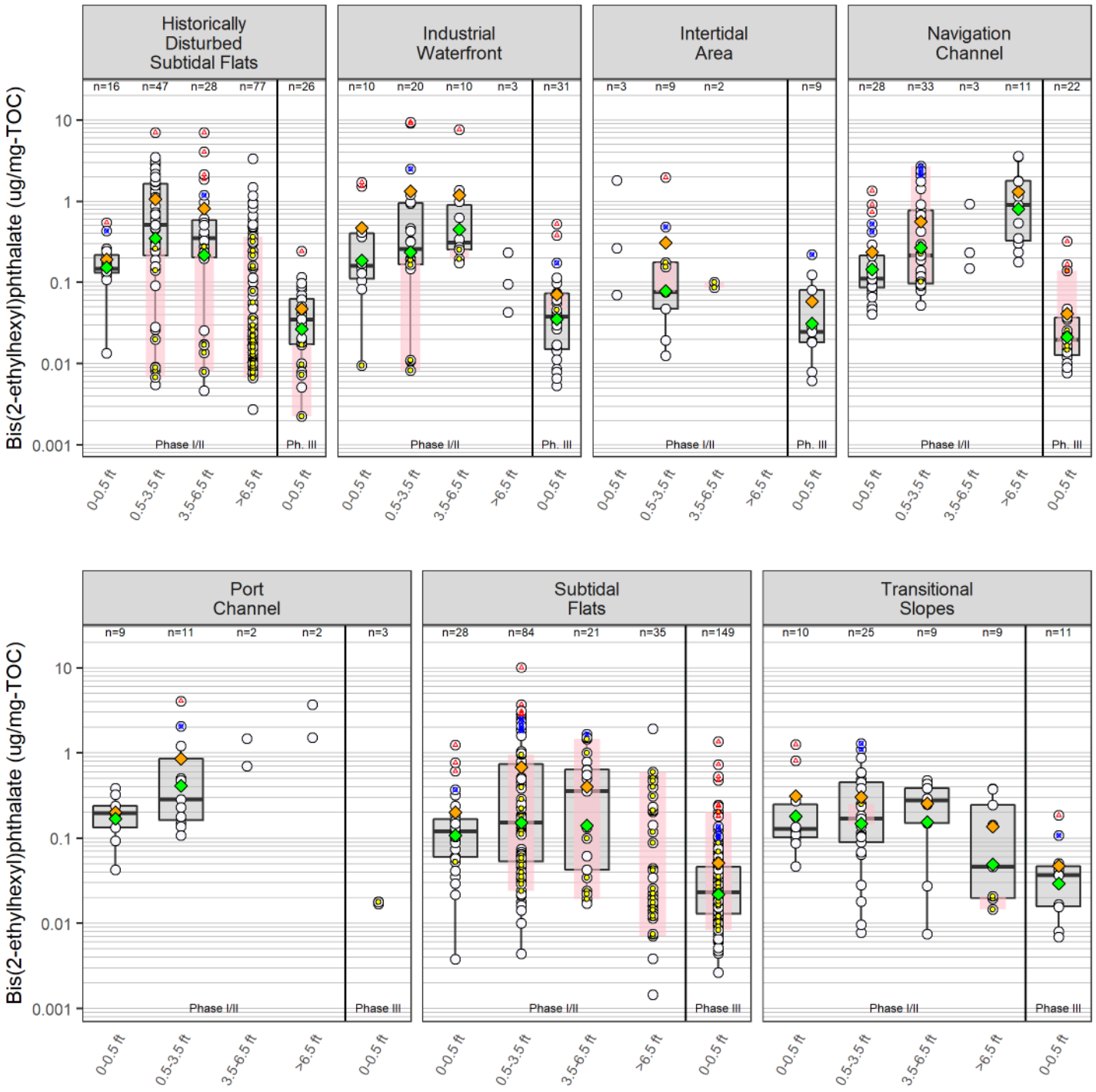
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Alkylated PAHs were not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TOTAL ALKYLATED PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-80



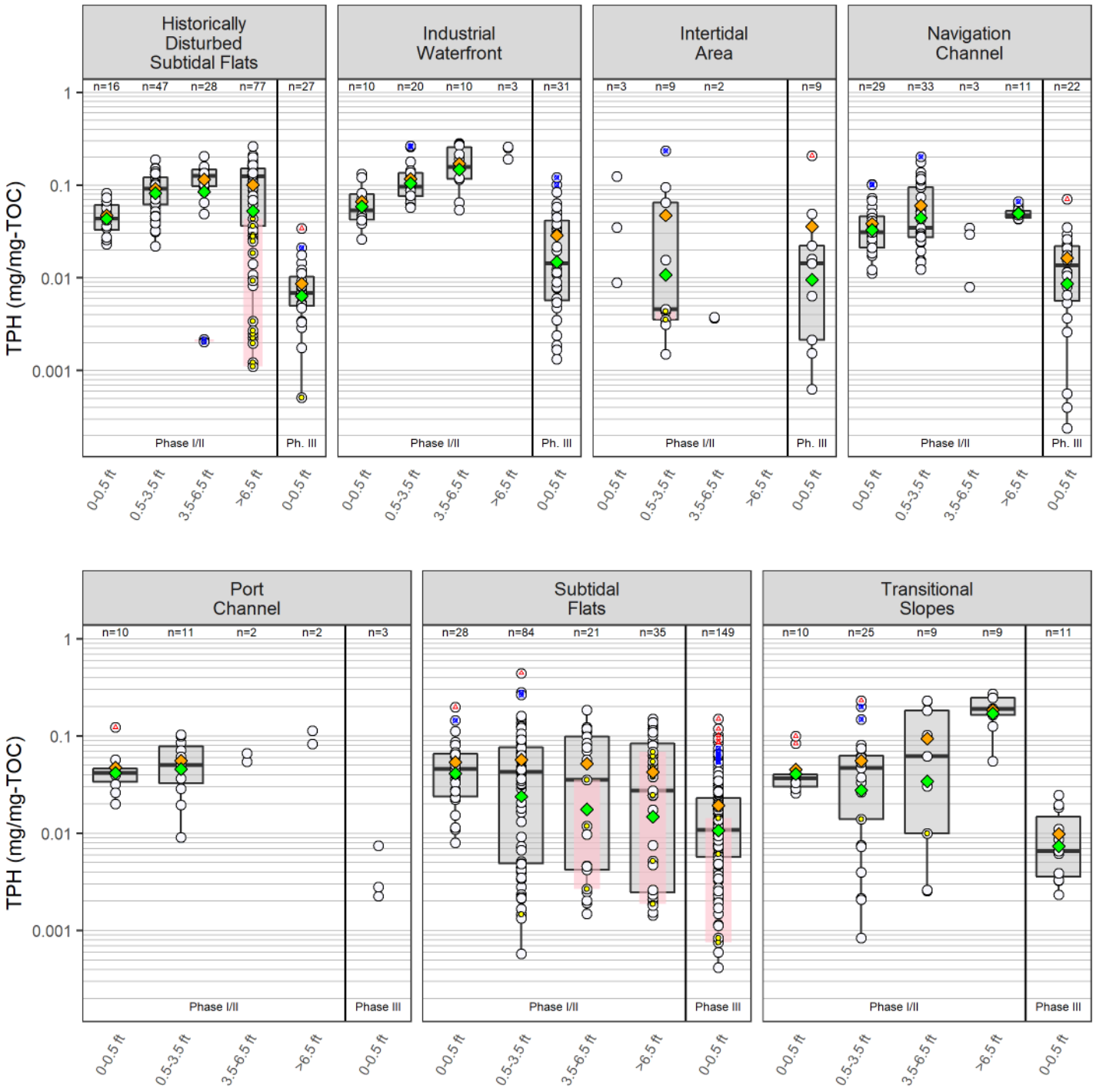
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

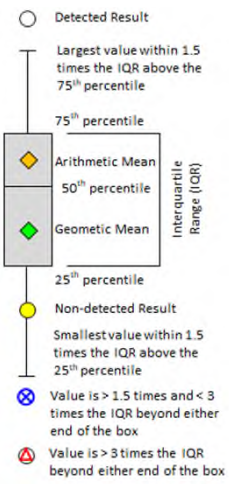
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - BIS(2-ETHYLHEXYL)PHTHALATE-NORMALIZED

Glenn Springs Holdings, Inc.
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FIGURE
F-81





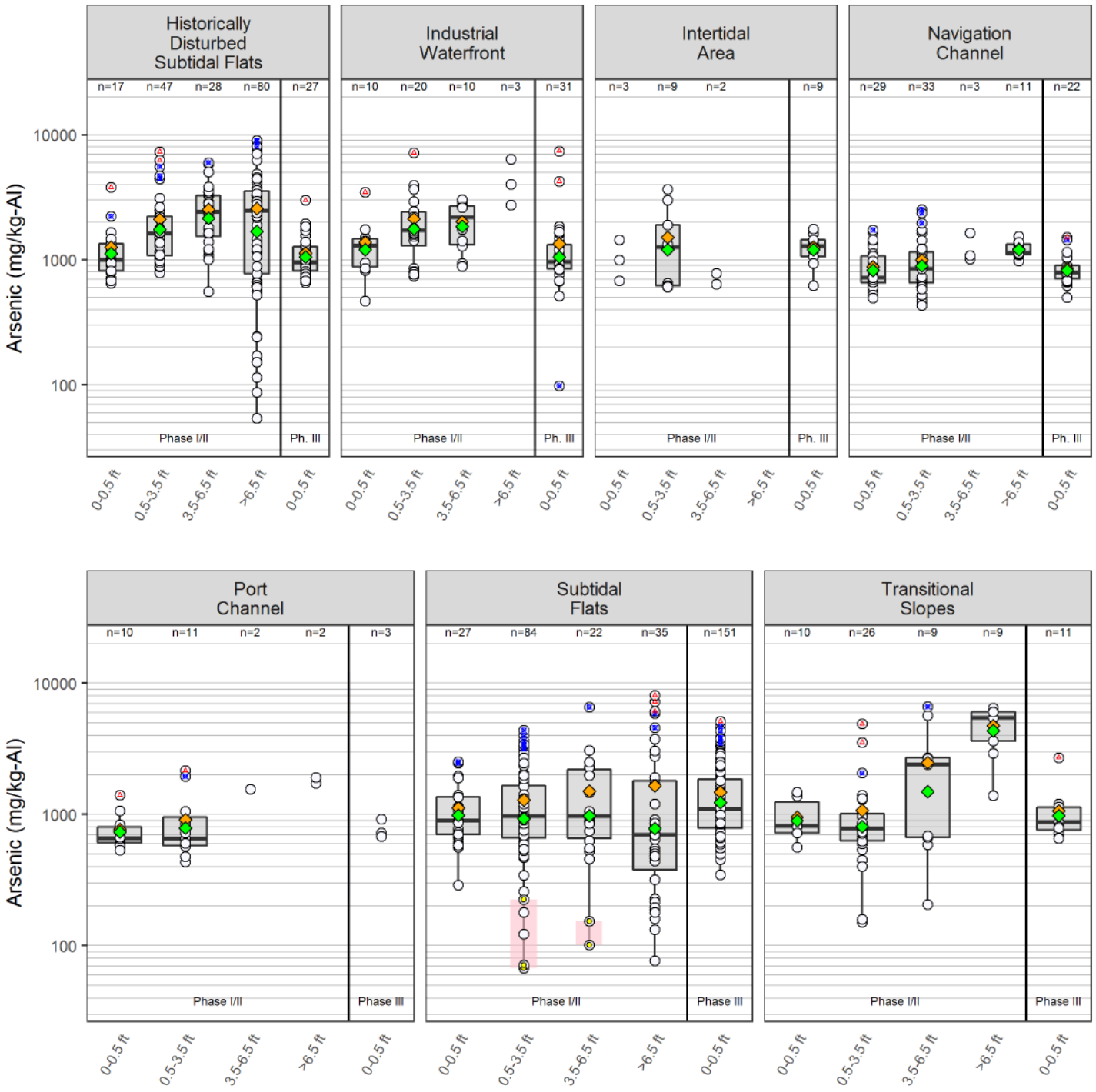
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.
The Phase I/II TPH data represent total extractable petroleum hydrocarbons (TEPH) whereas Phase III TPH data represent C9-C40 hydrocarbons.

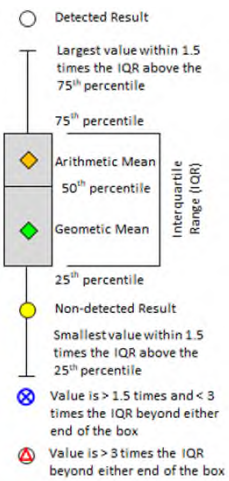
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - TPH-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-82





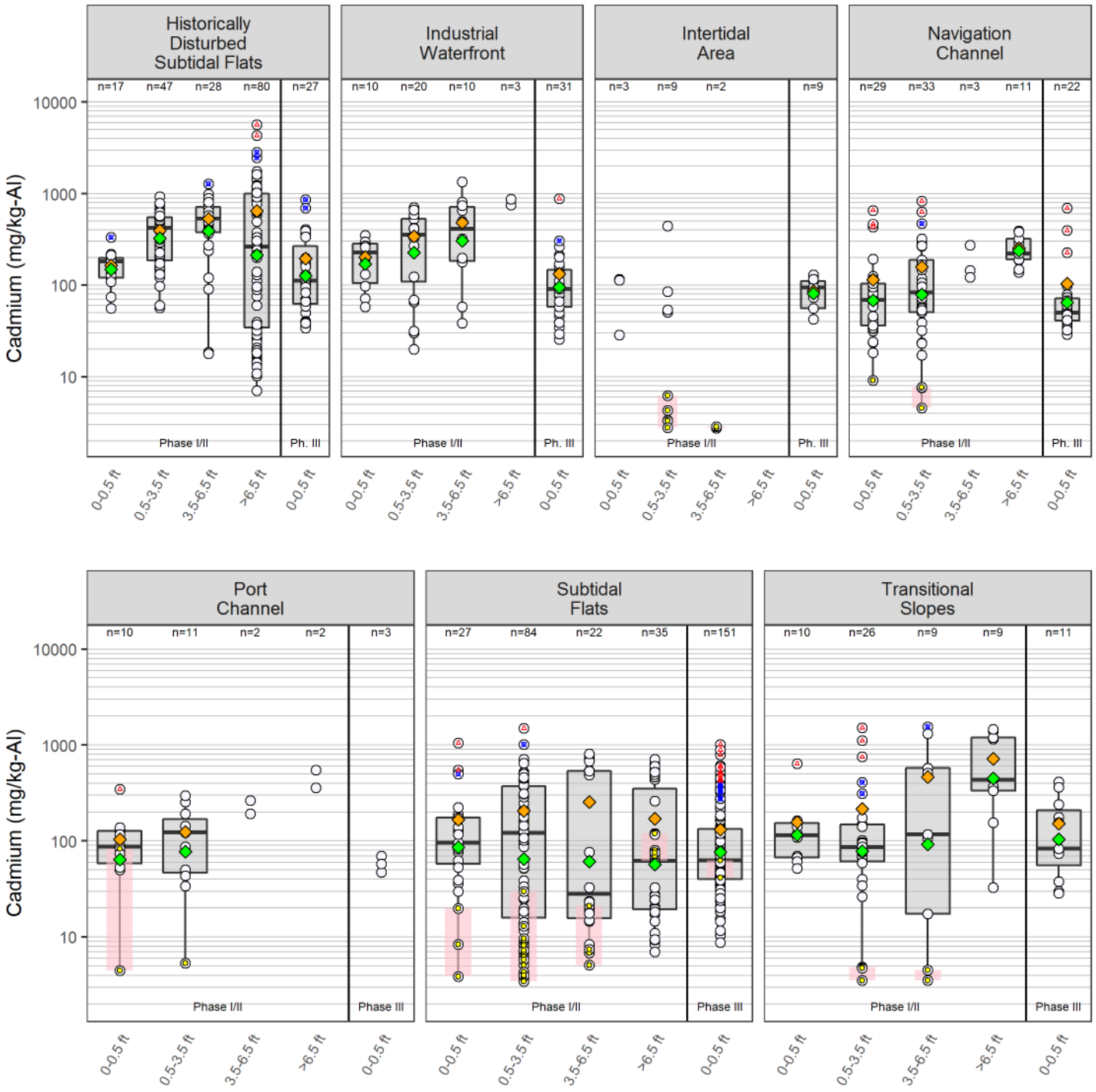
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - ARSENIC-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-83



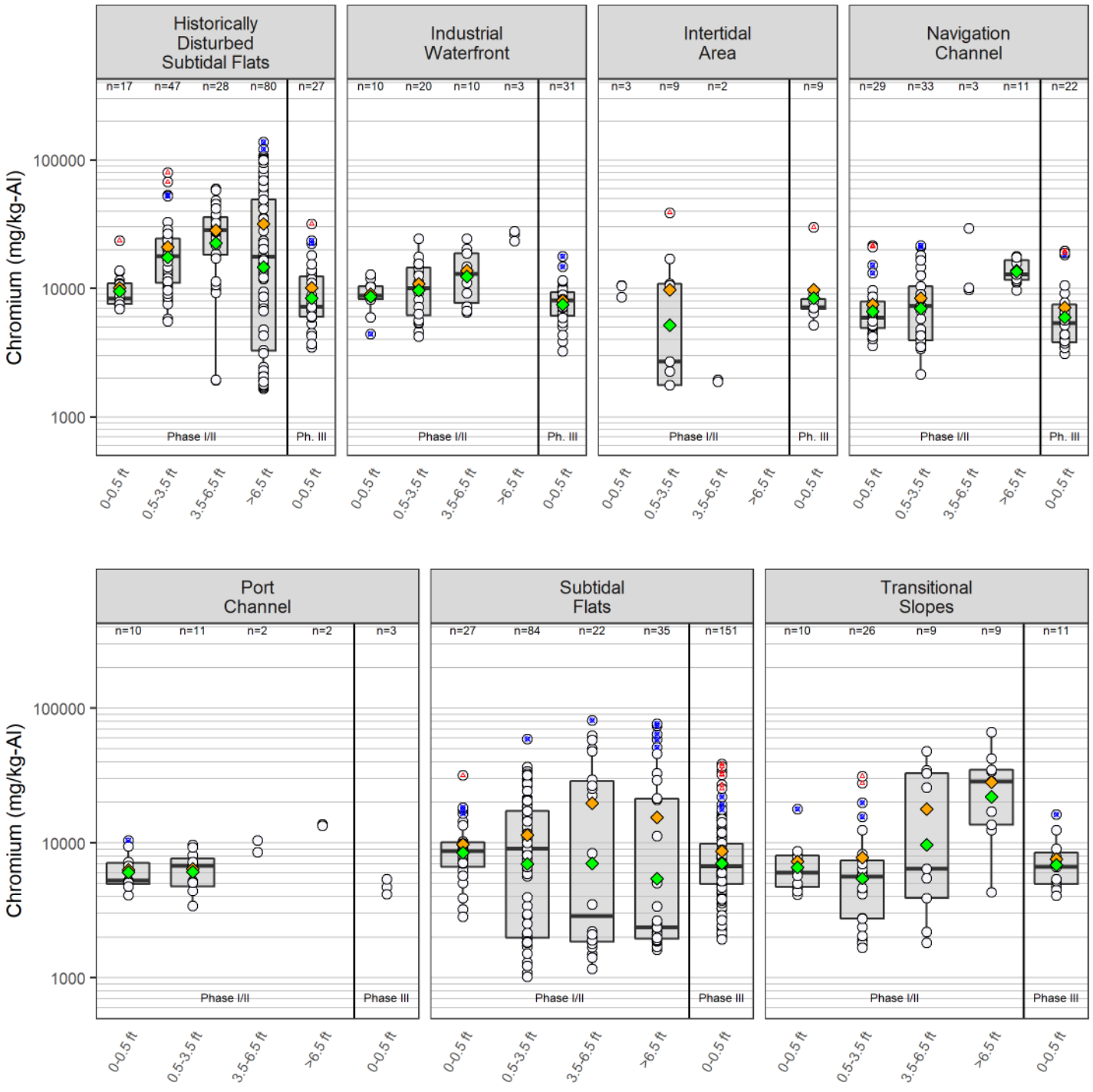
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

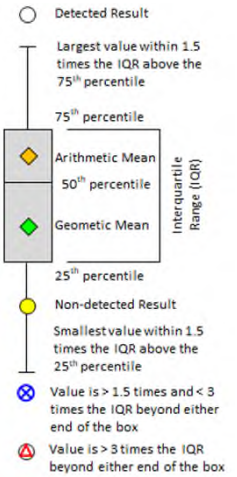
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - CADMIUM-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-84





Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - CHROMIUM-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-85

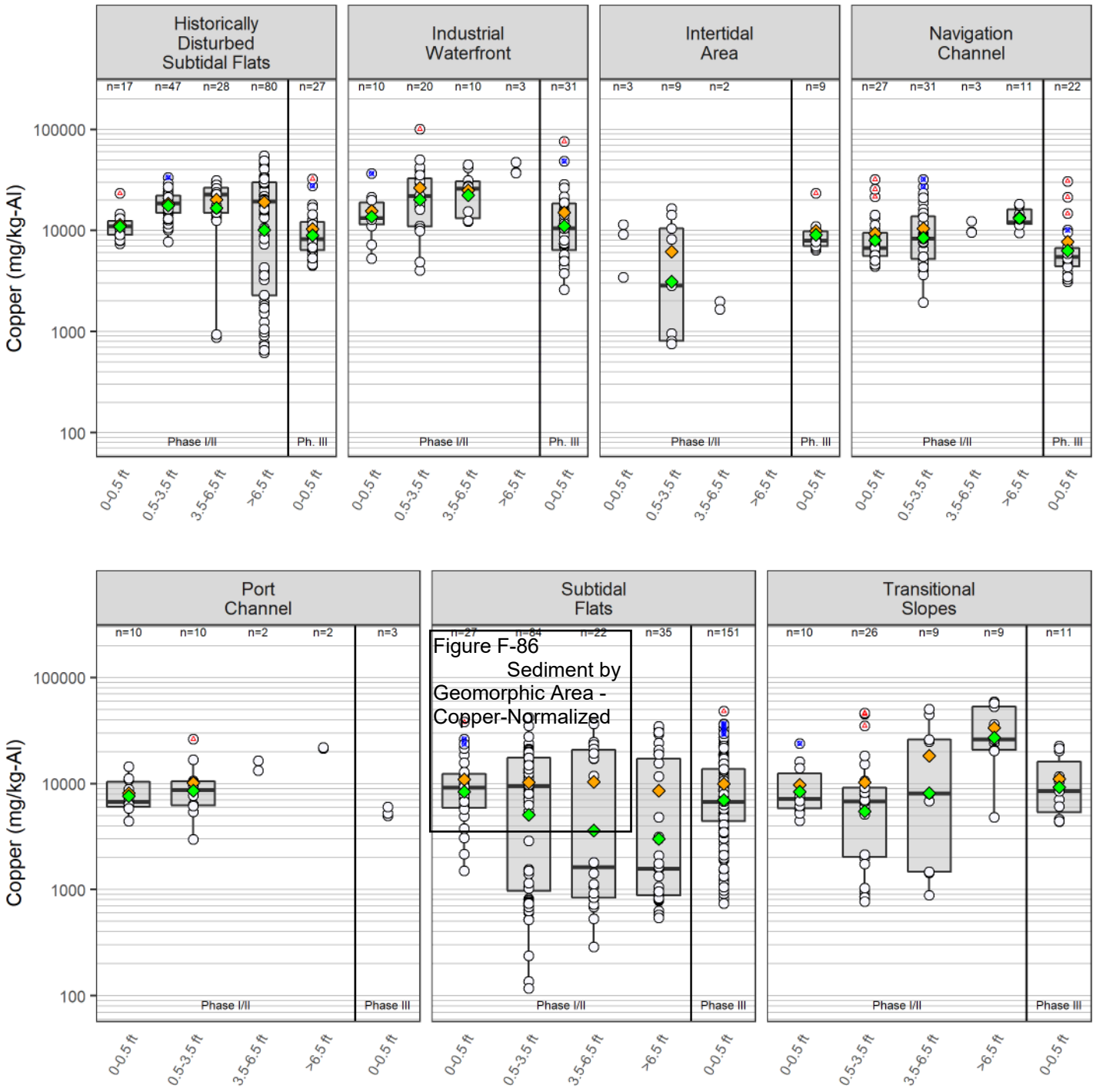
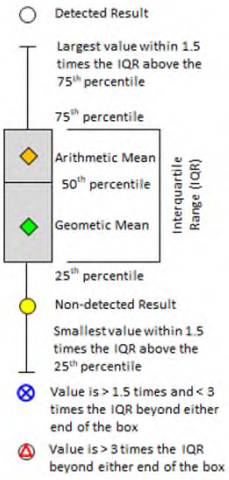


Figure F-86
Sediment by Geomorphic Area - Copper-Normalized



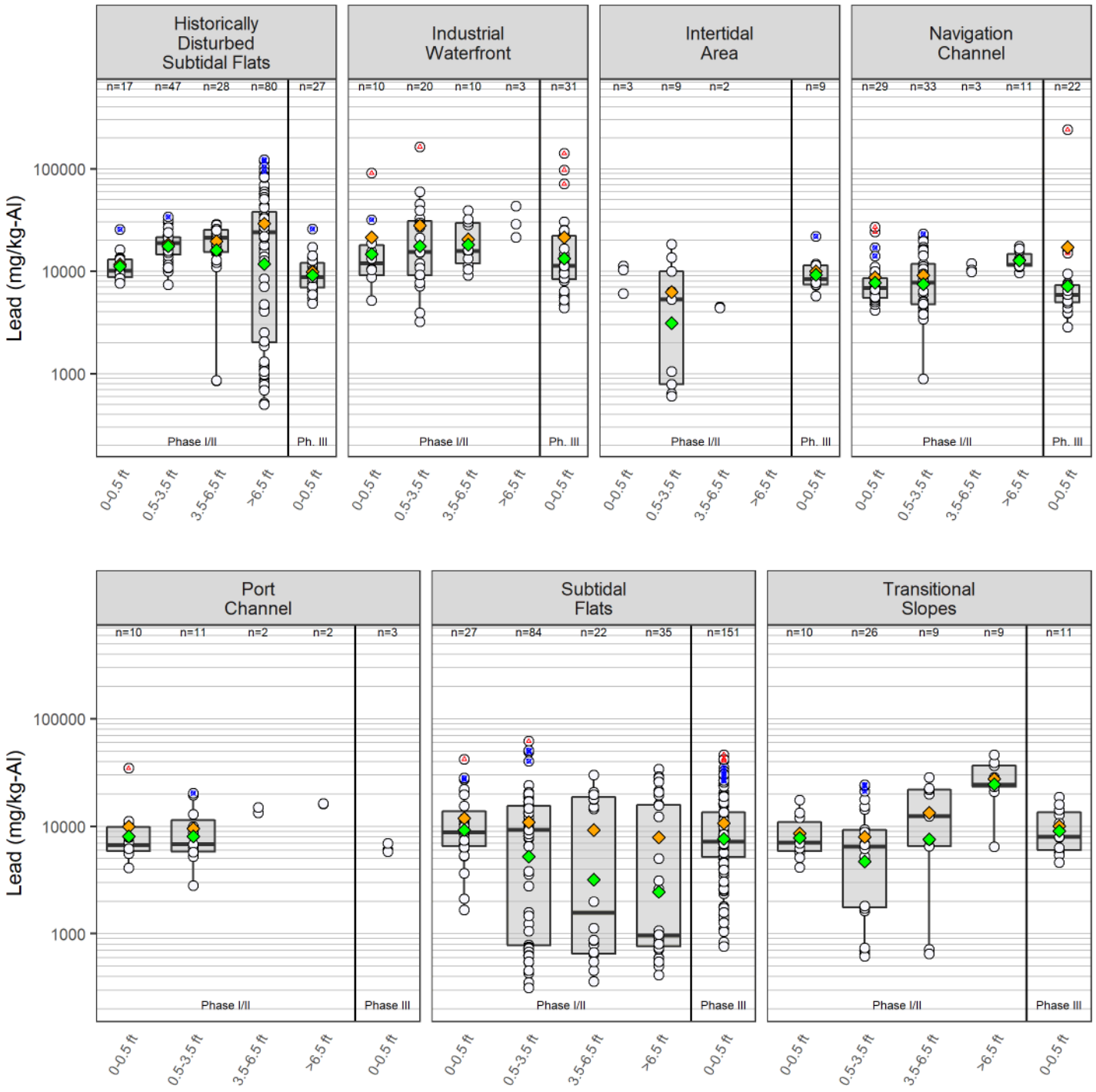
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

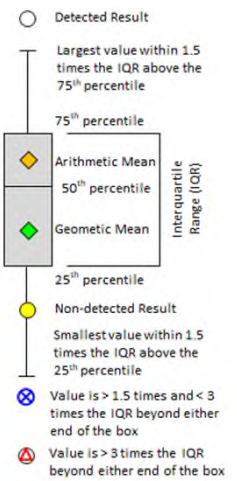
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - COPPER-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-86





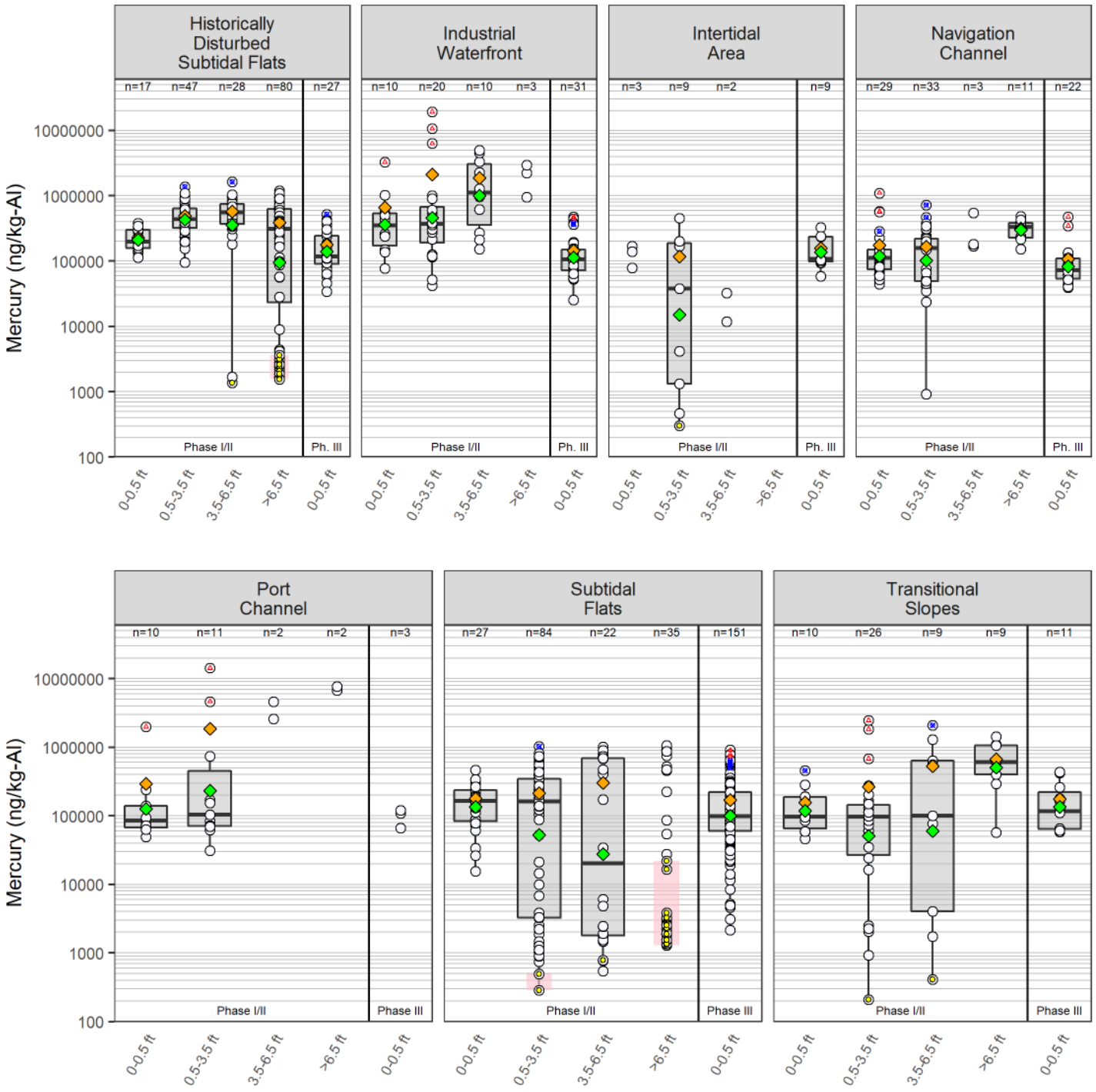
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

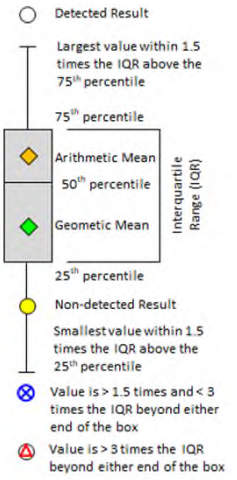
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - LEAD-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-87





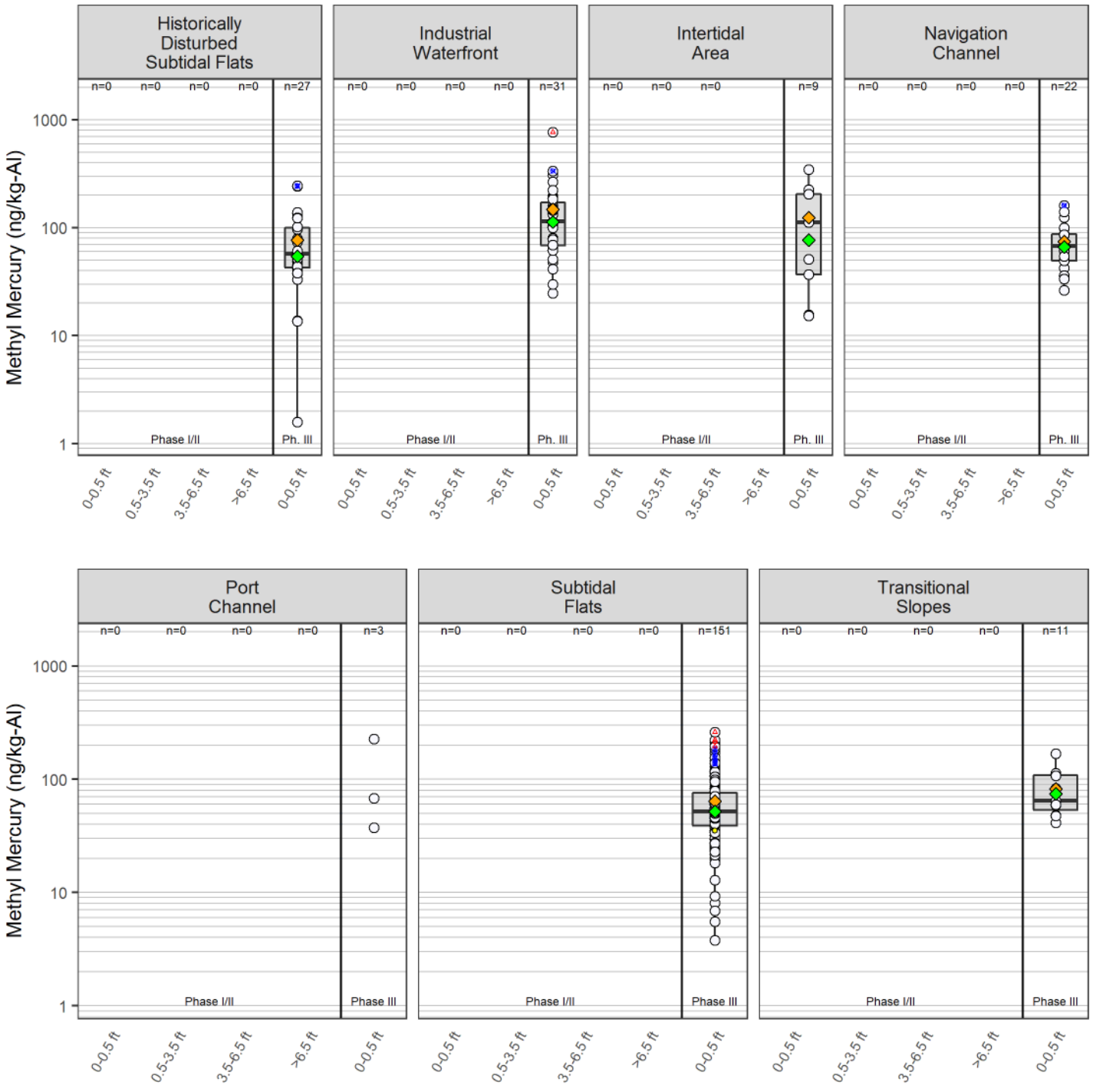
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

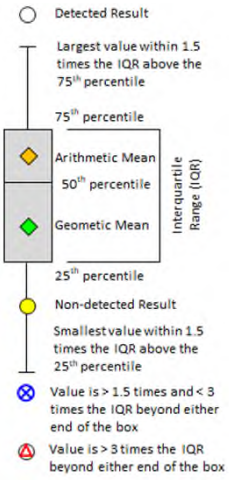
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - MERCURY-NORMALIZED

Glenn Springs Holdings, Inc.
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FIGURE
F-88





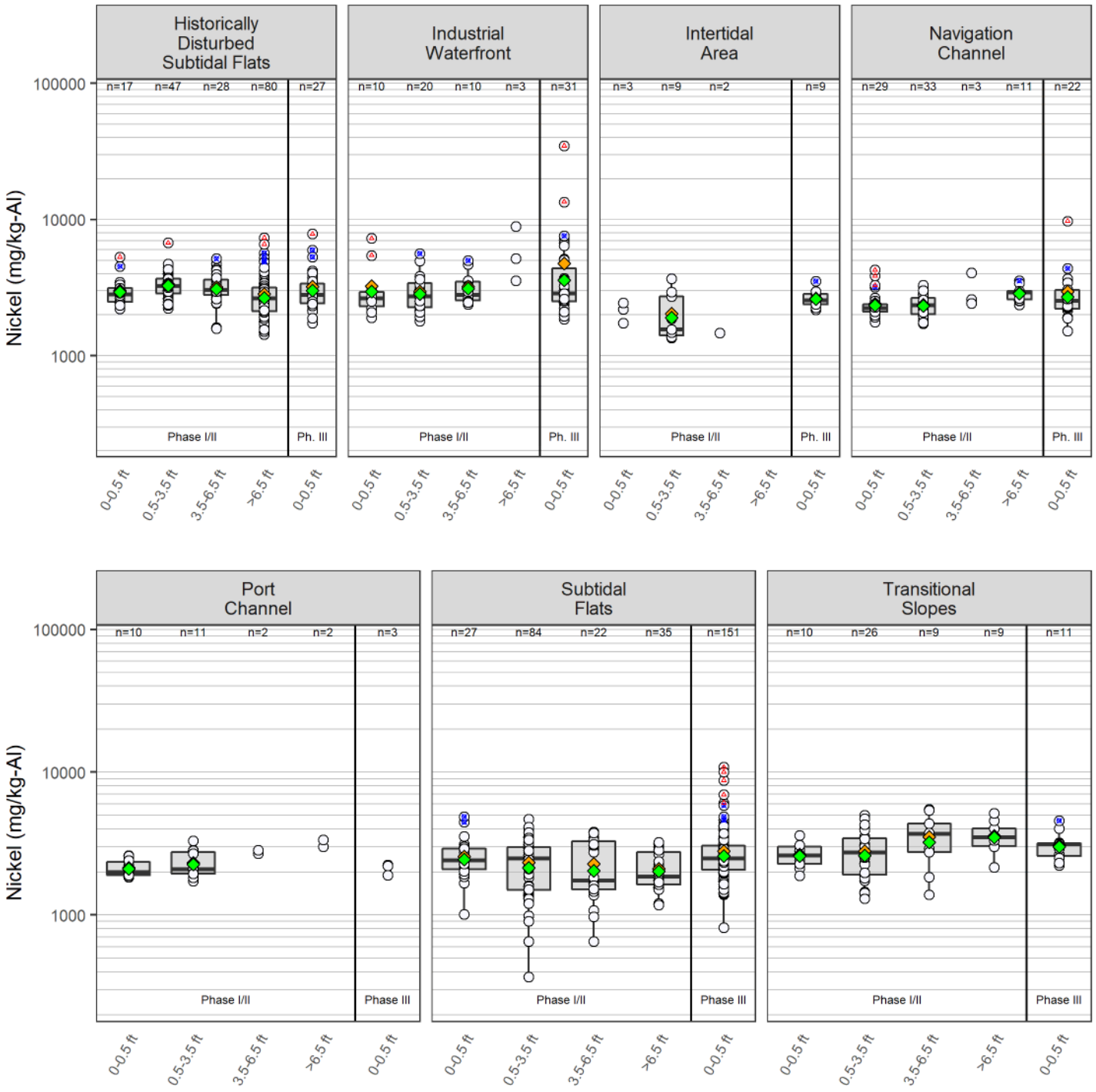
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Methyl mercury was not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

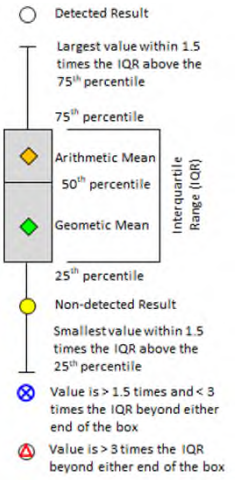
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - METHYL MERCURY-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-89





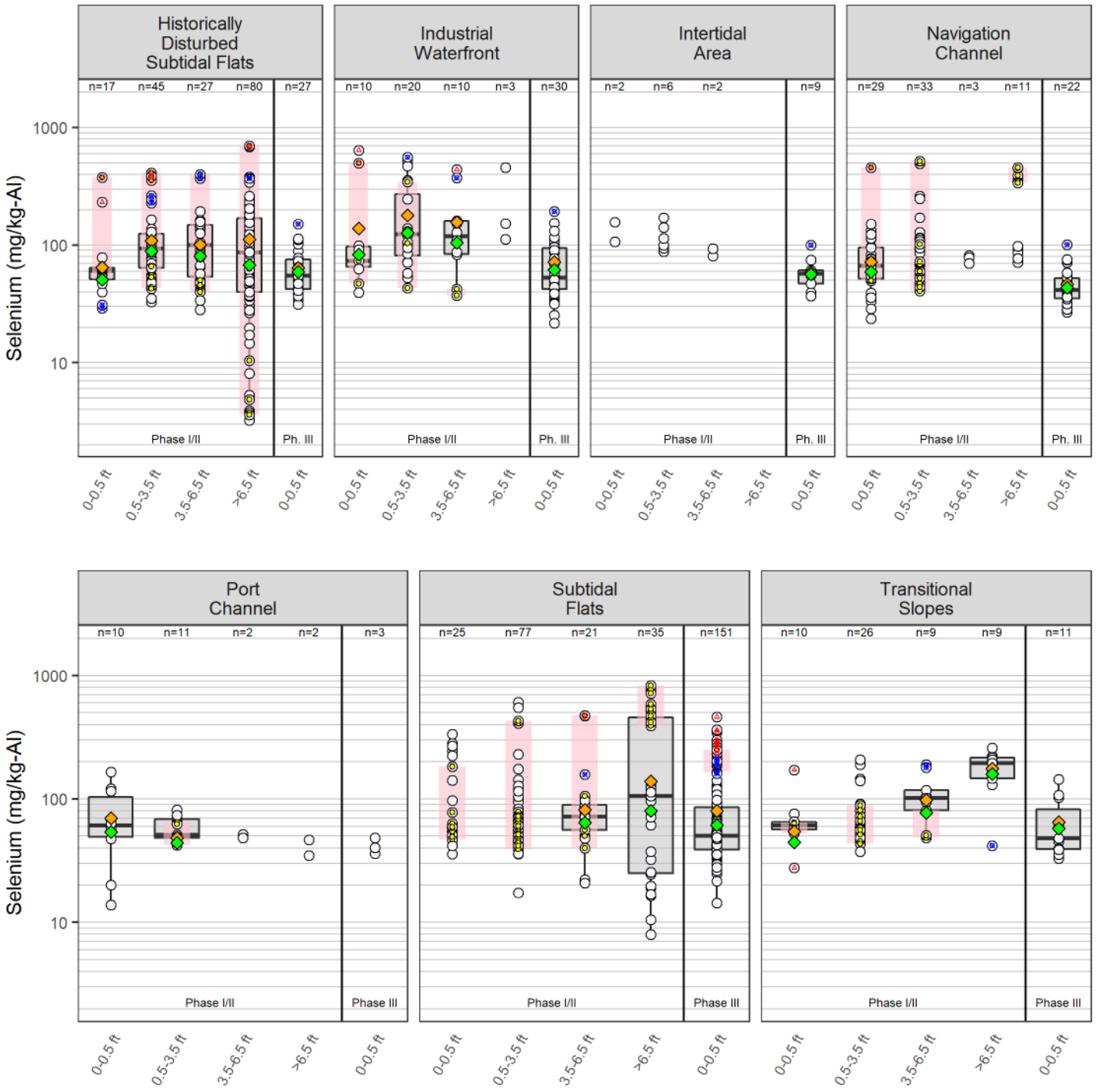
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

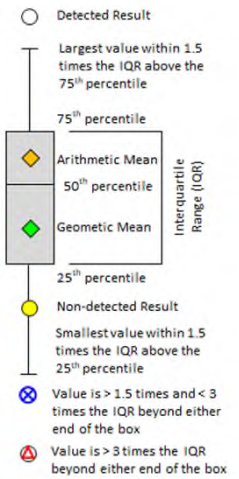
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - NICKEL-NORMALIZED

Glenn Springs Holdings, Inc.
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FIGURE
F-90





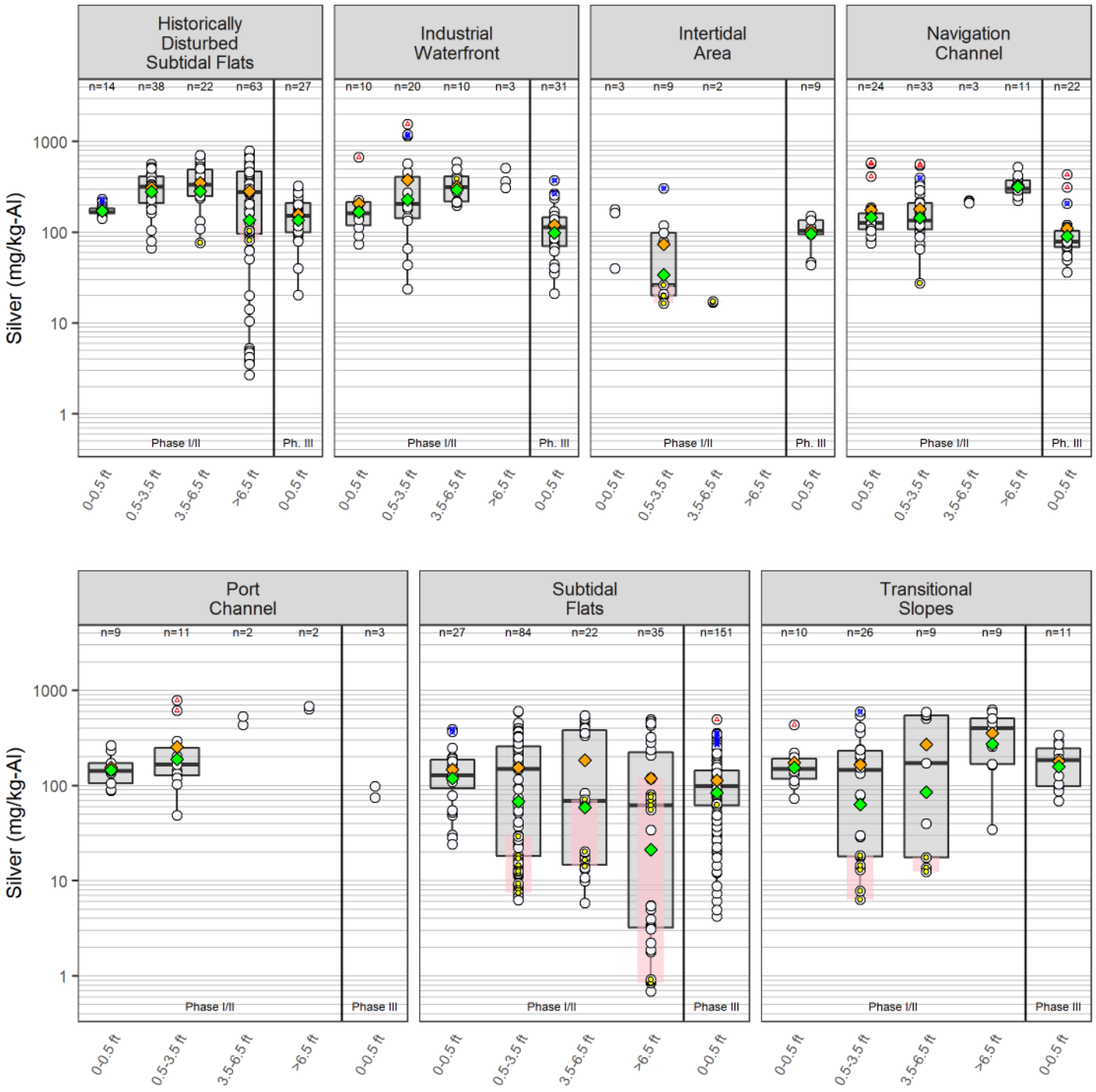
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

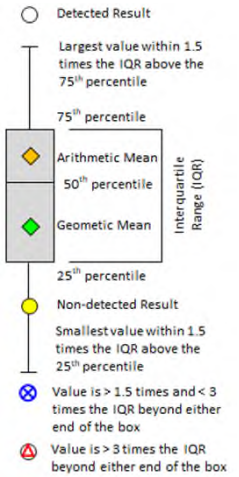
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - SELENIUM-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-91





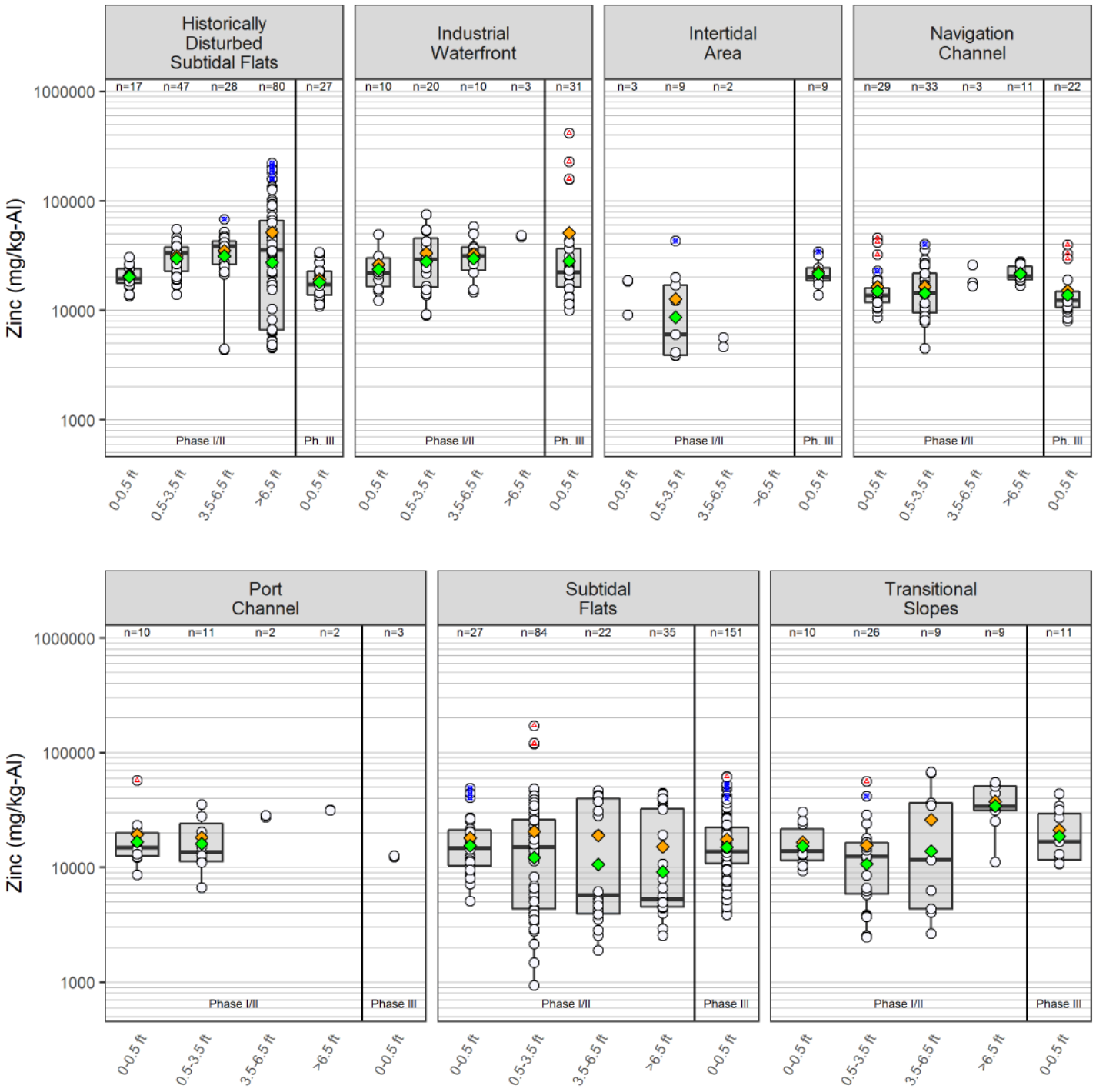
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

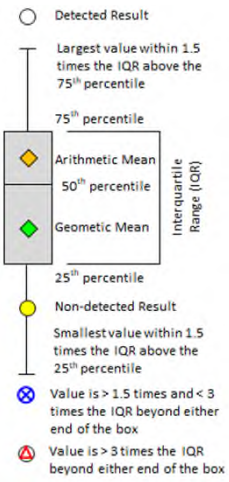
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - SILVER-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-92





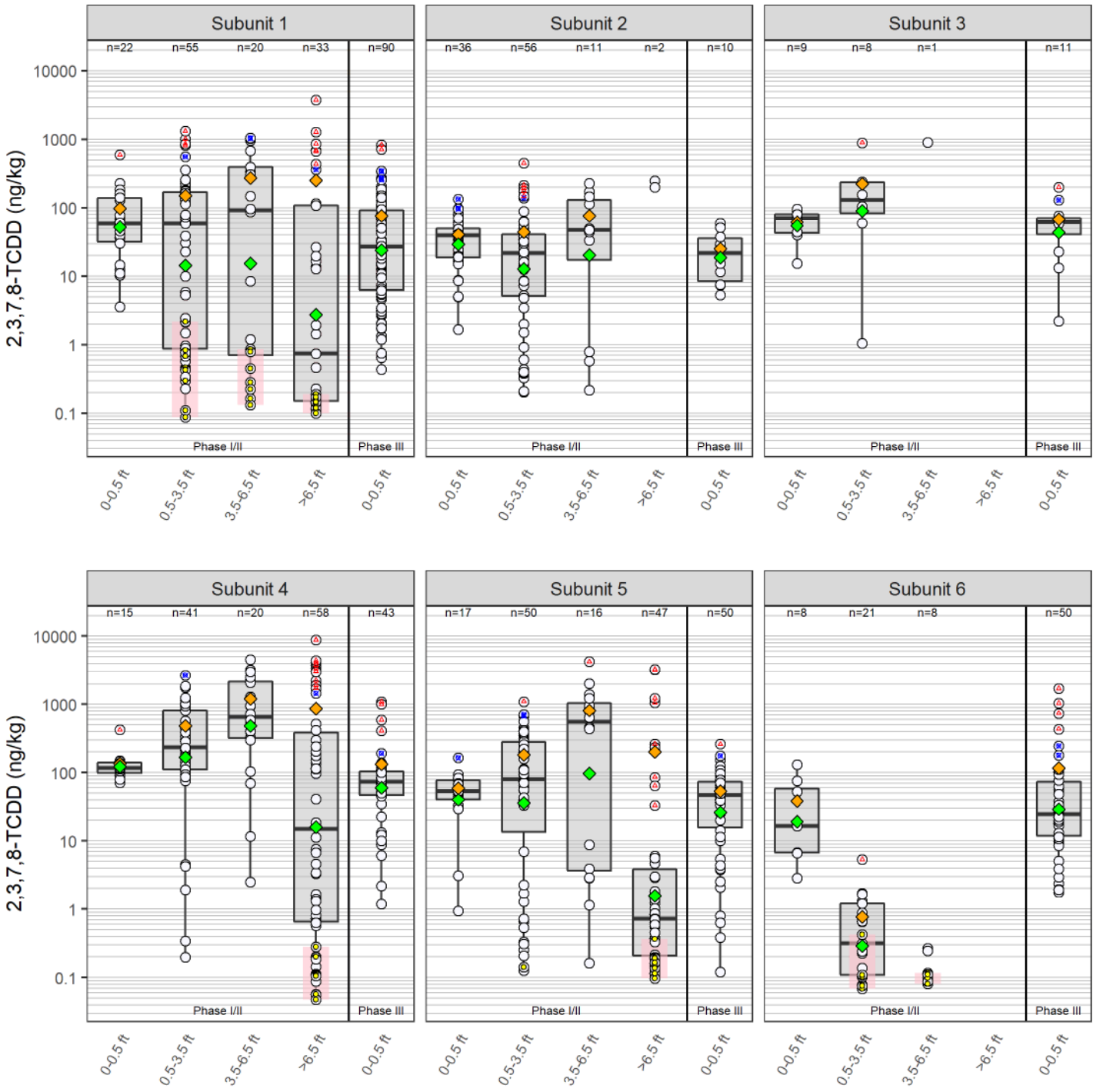
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
Geomorphic areas shown on Figure 2-7.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY GEOMORPHIC AREA - ZINC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-93



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometric Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

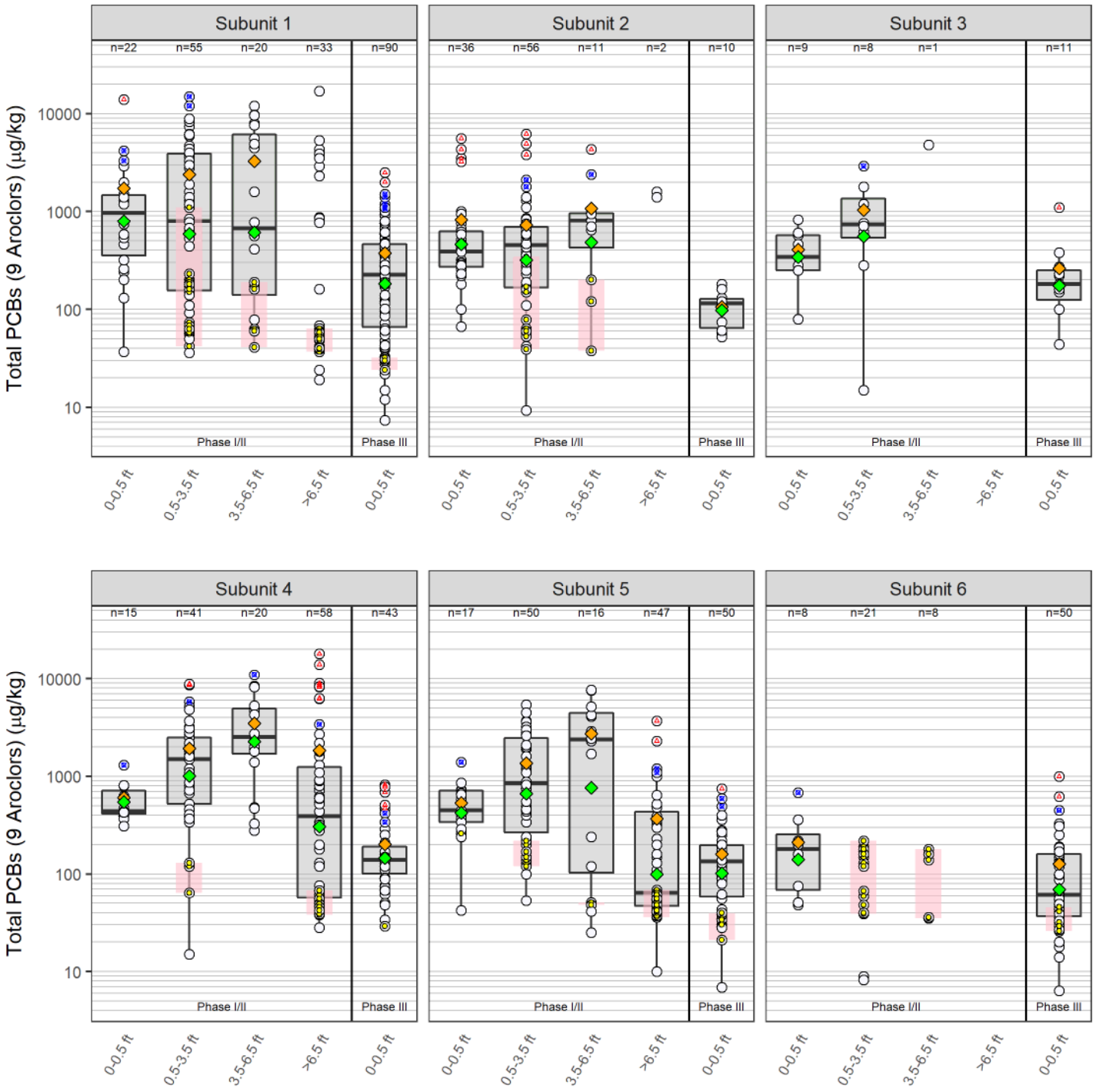
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

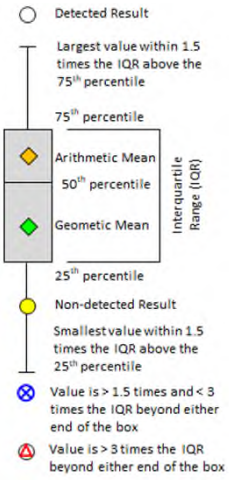
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - 2,3,7,8-TCDD

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-94





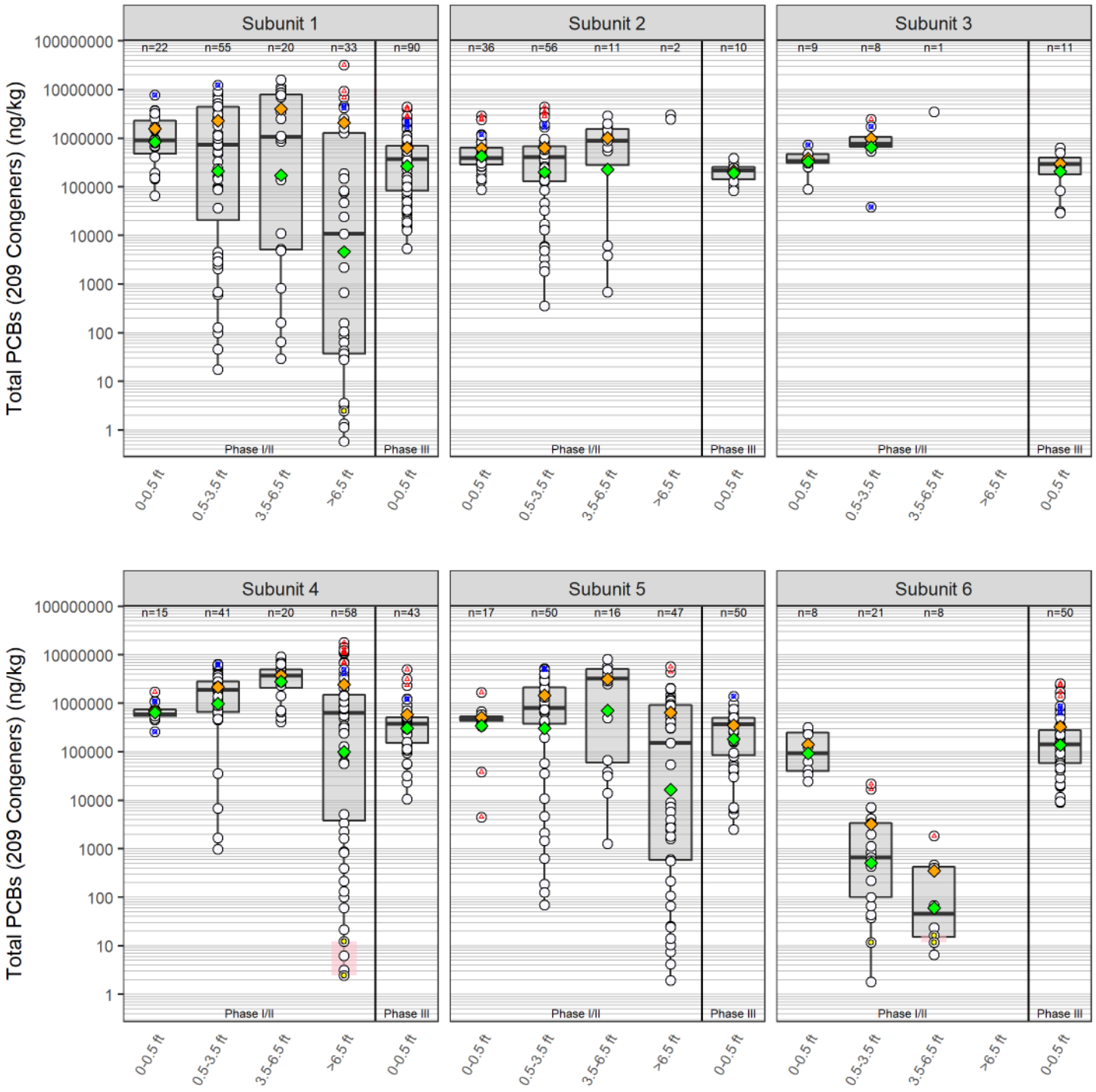
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
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Sample top depth used to assign depth category:
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

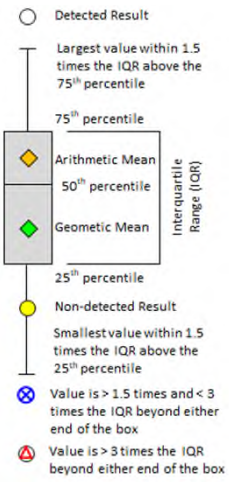
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL PCBS (9 AROCLORS)

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-95





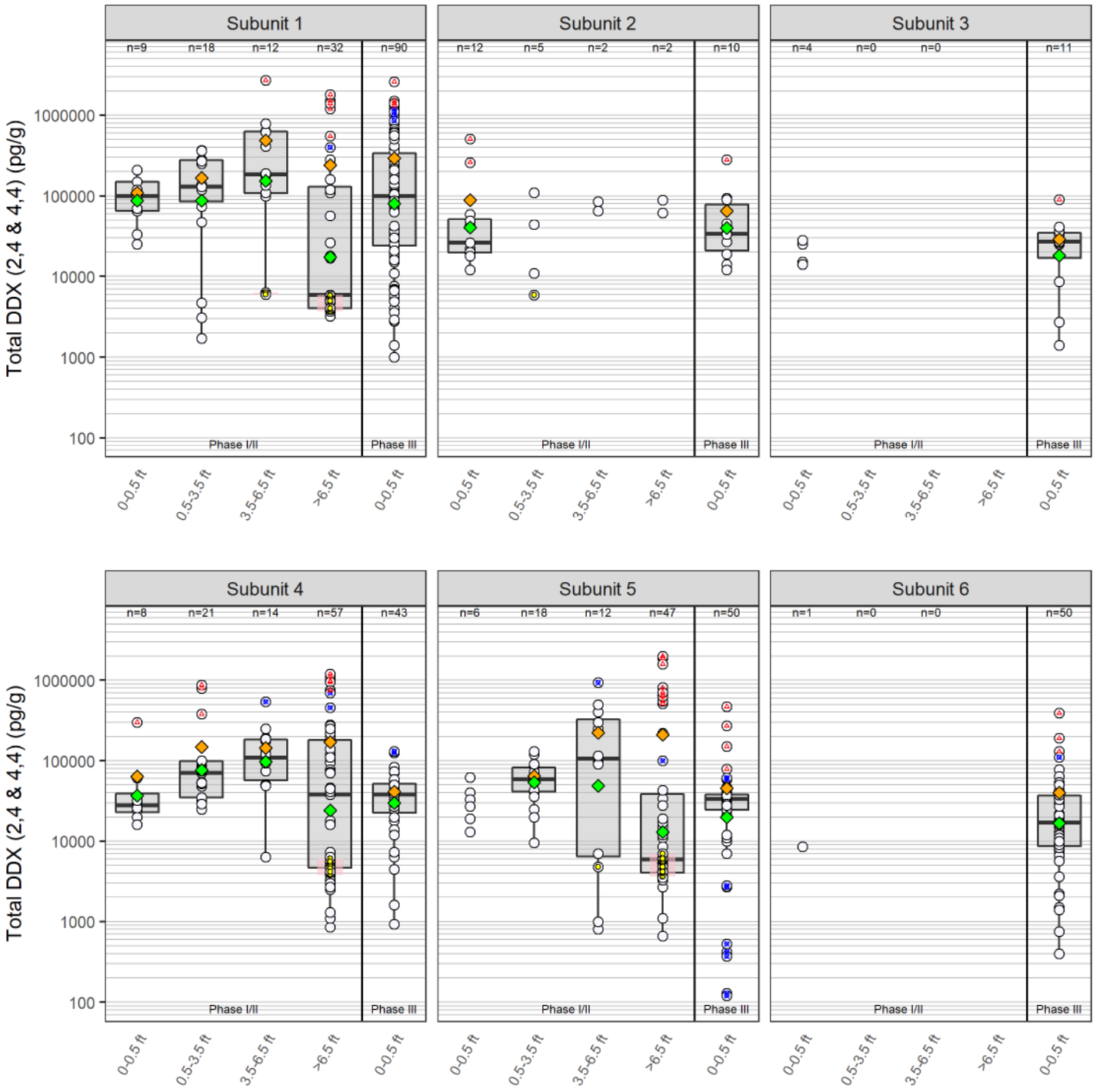
Notes:
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Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

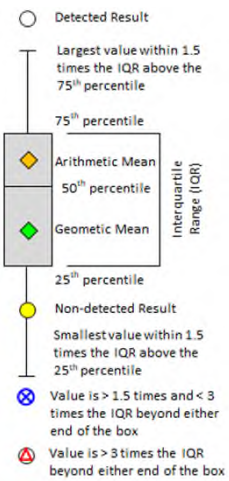
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL PCB (209 CONGENERS)

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-96





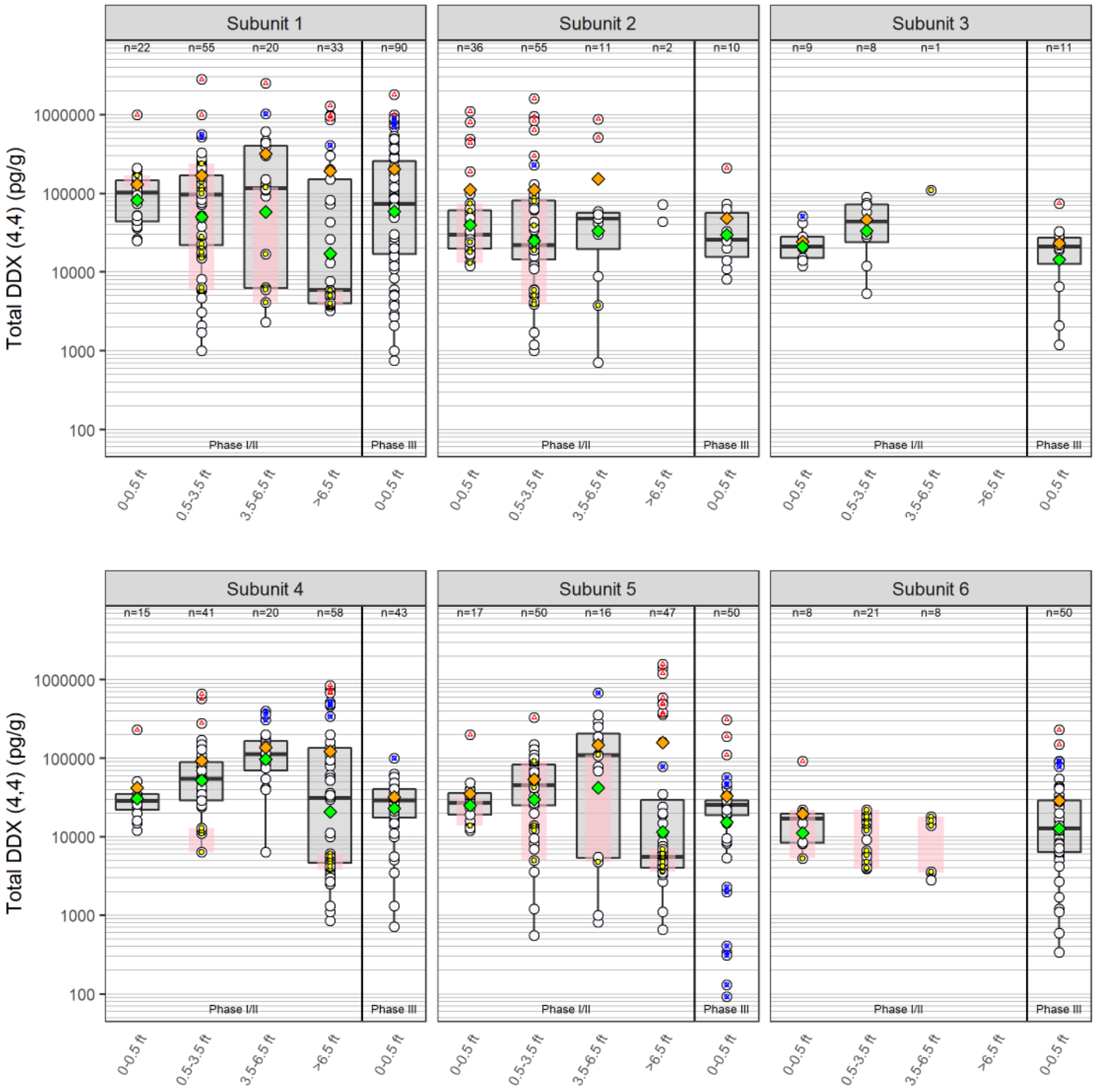
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

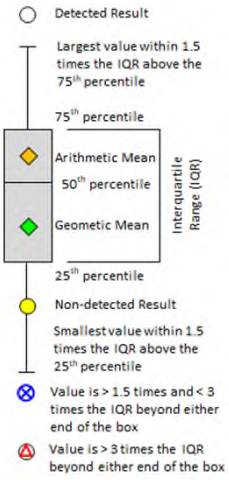
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL DDX (2,4 & 4,4)

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-97





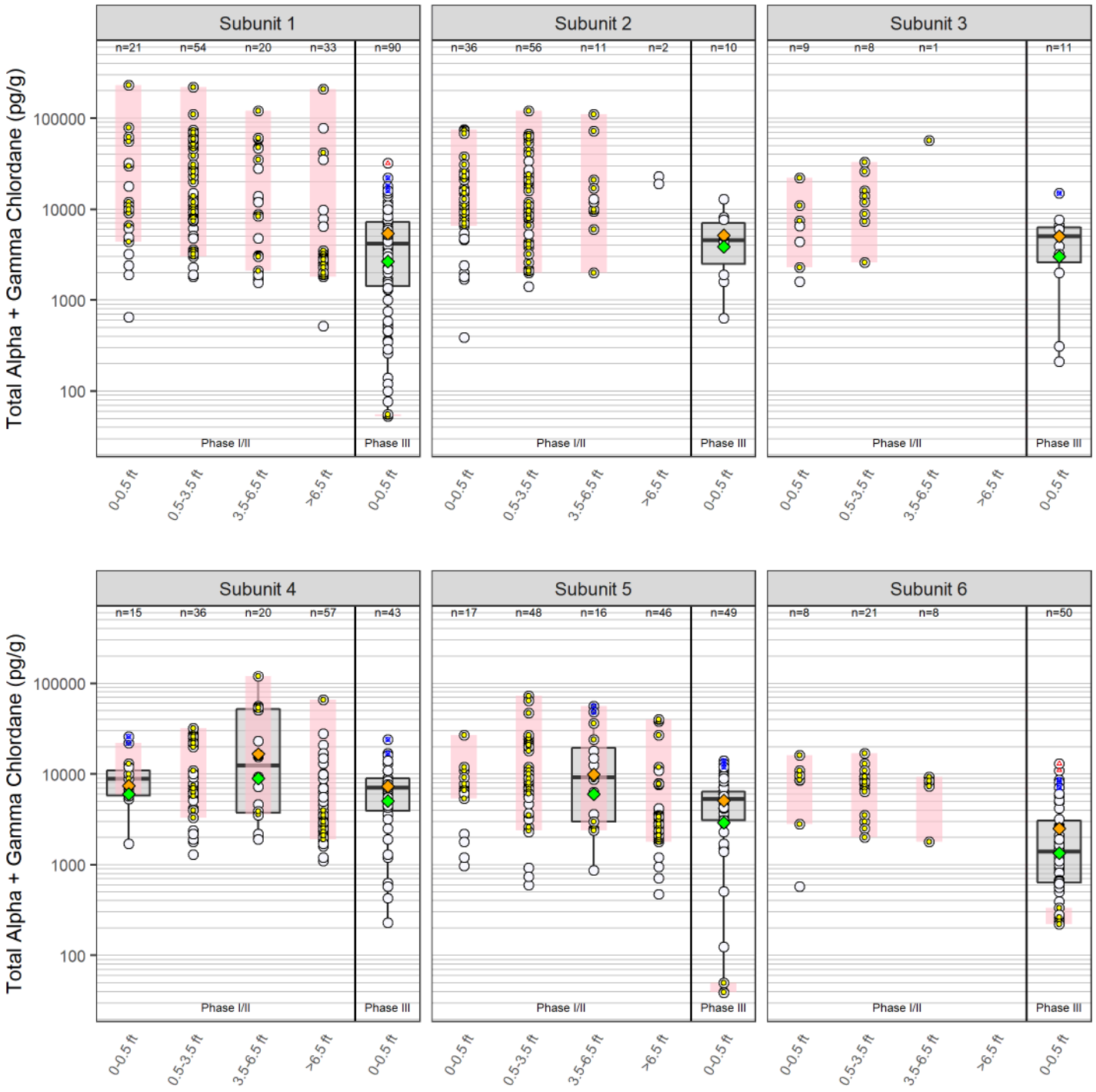
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

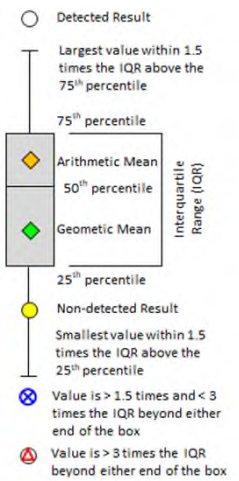
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL DDX (4,4)

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-98





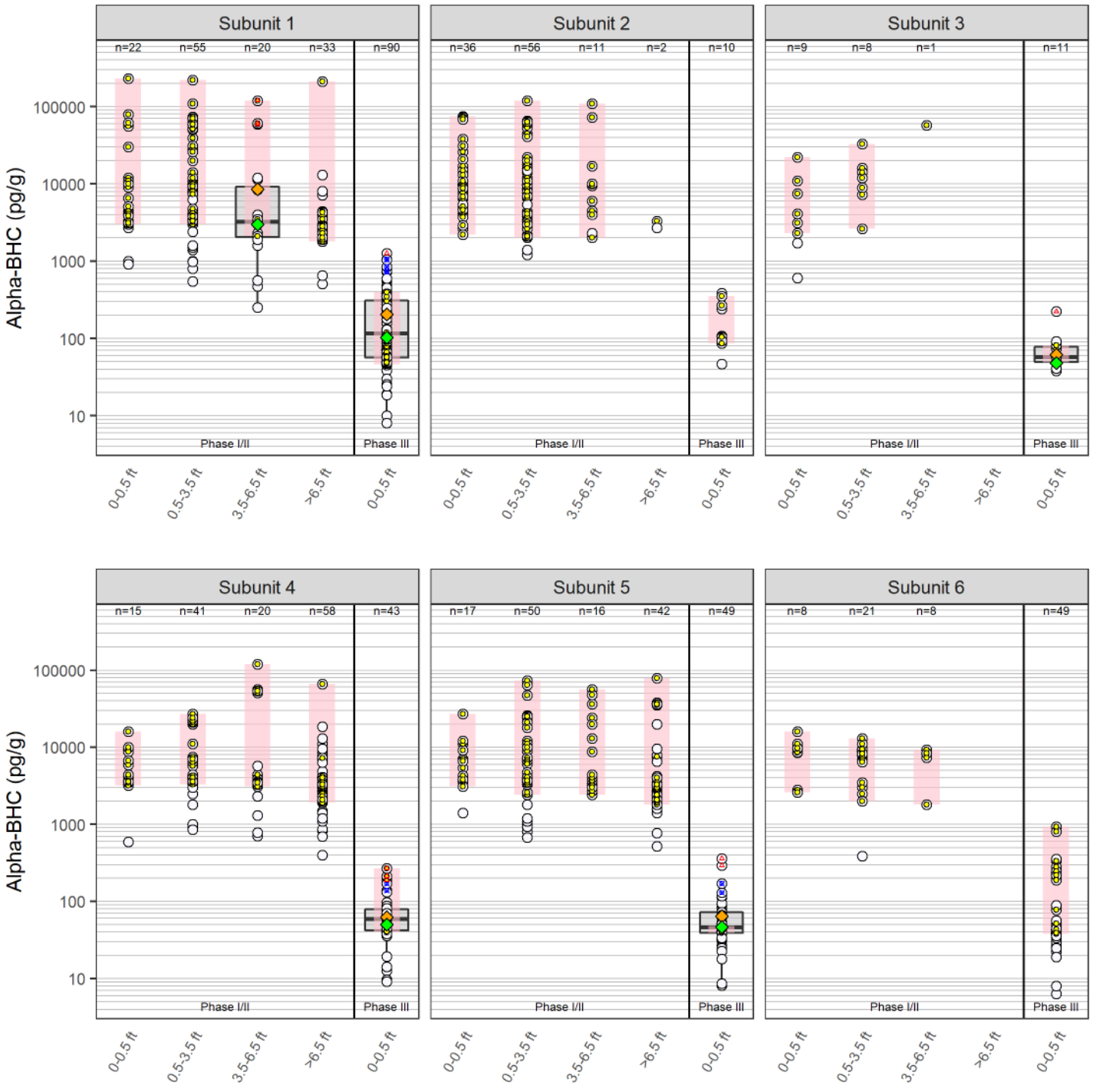
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
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Top depth >= 6.5 ft = >6.5 ft
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For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

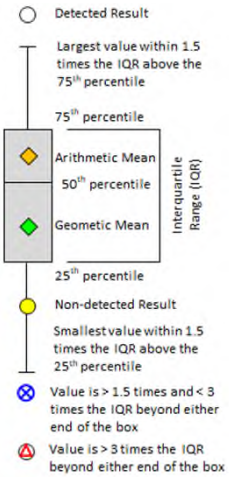
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL ALPHA + GAMMA CHLORDANE

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-99





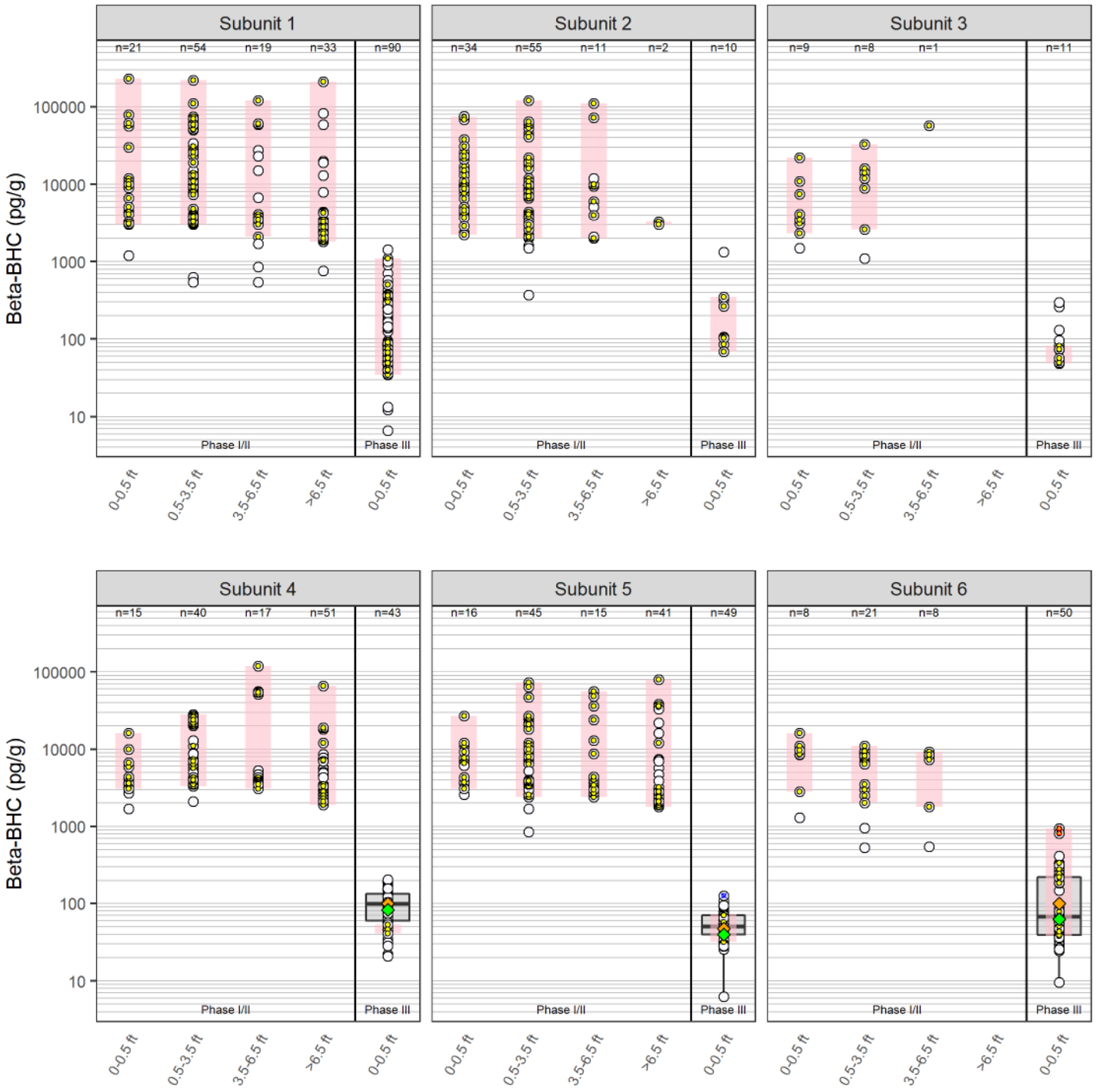
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - ALPHA-BHC

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-100



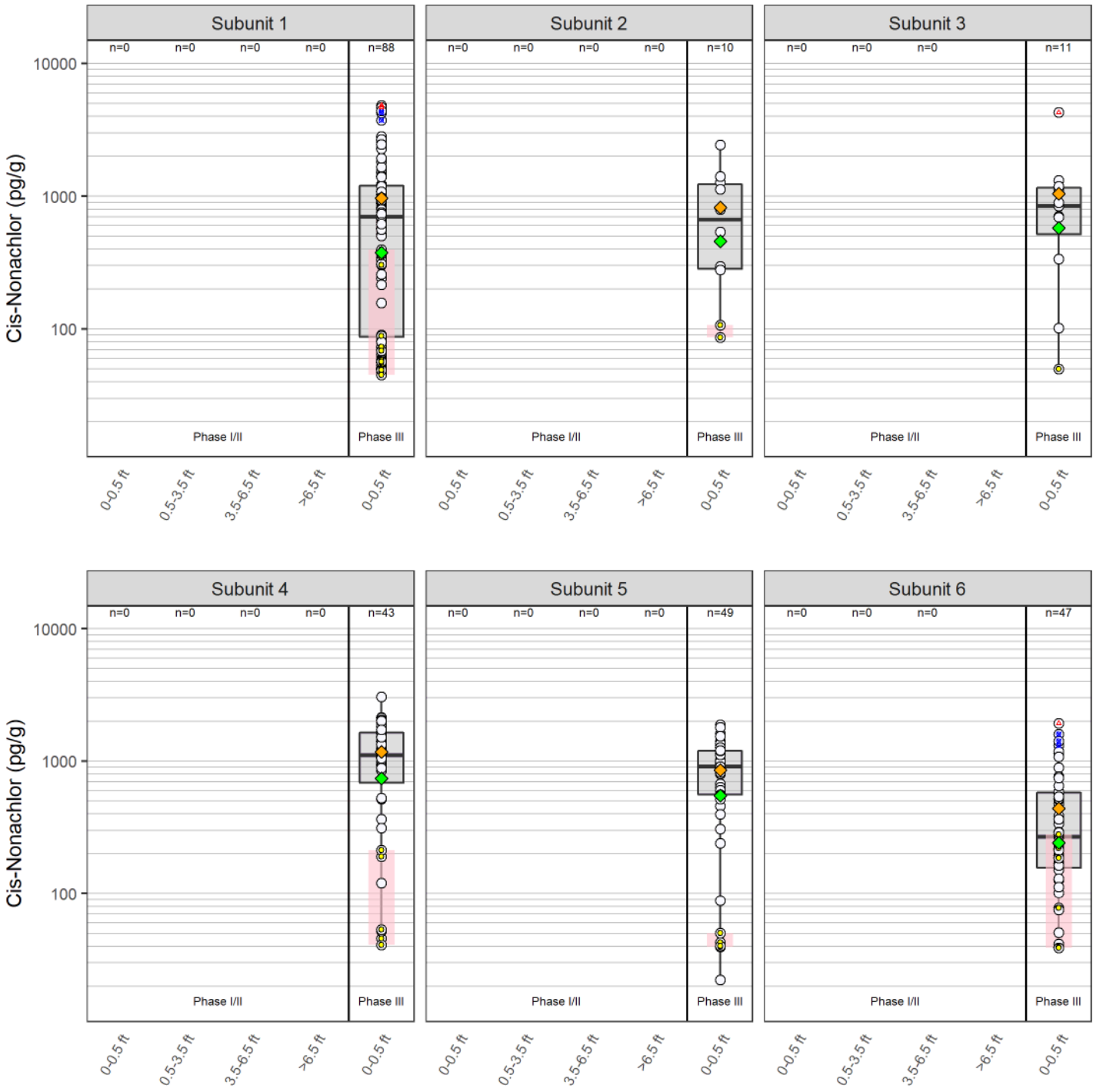
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

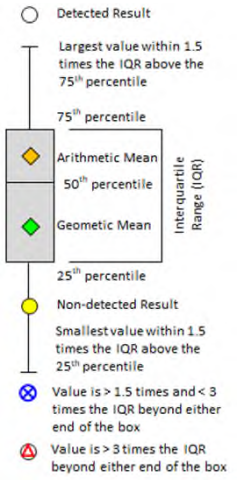
DIAMOND ALKALI SUPERFUND SITE
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REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - BETA-BHC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-101





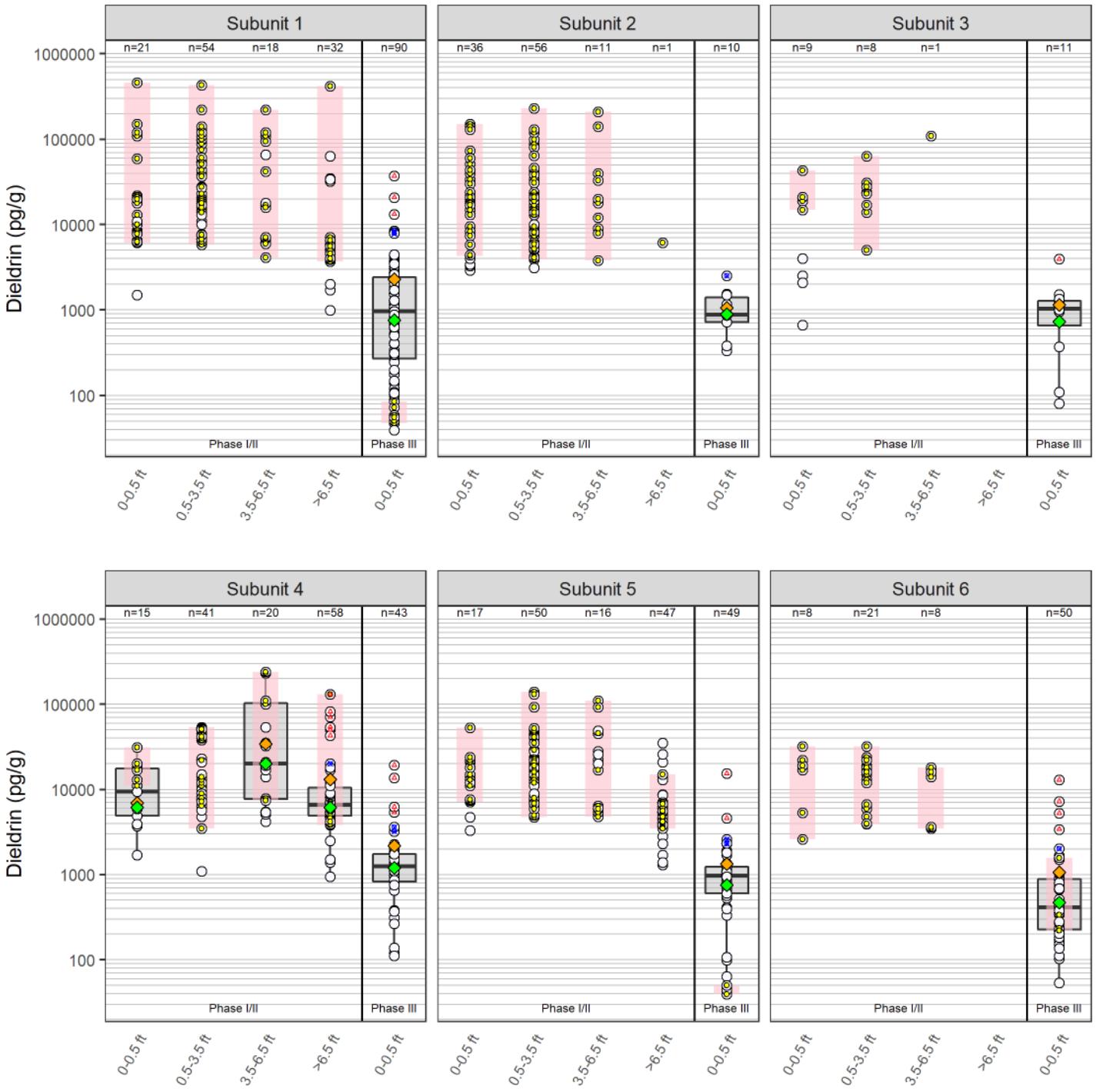
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

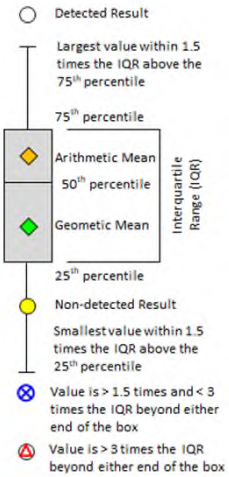
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - CIS-NONACHLOR

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-102





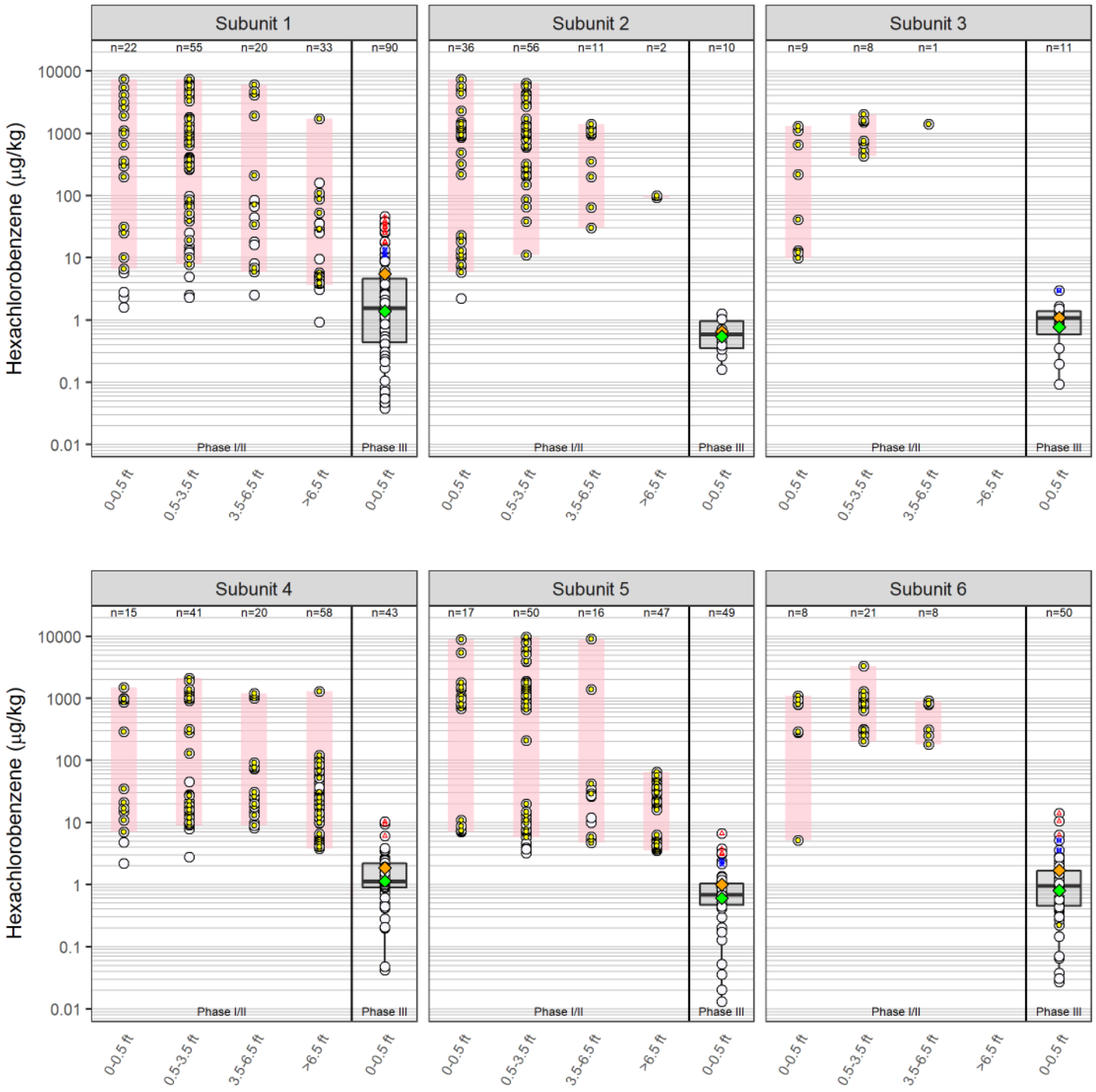
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

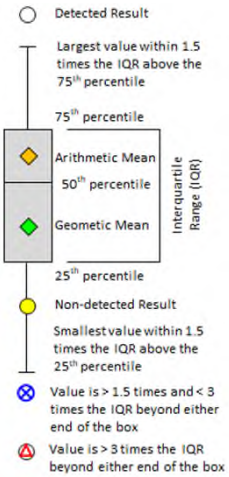
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - DIELDRIN

Glenn Springs Holdings, Inc.
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FIGURE
F-103





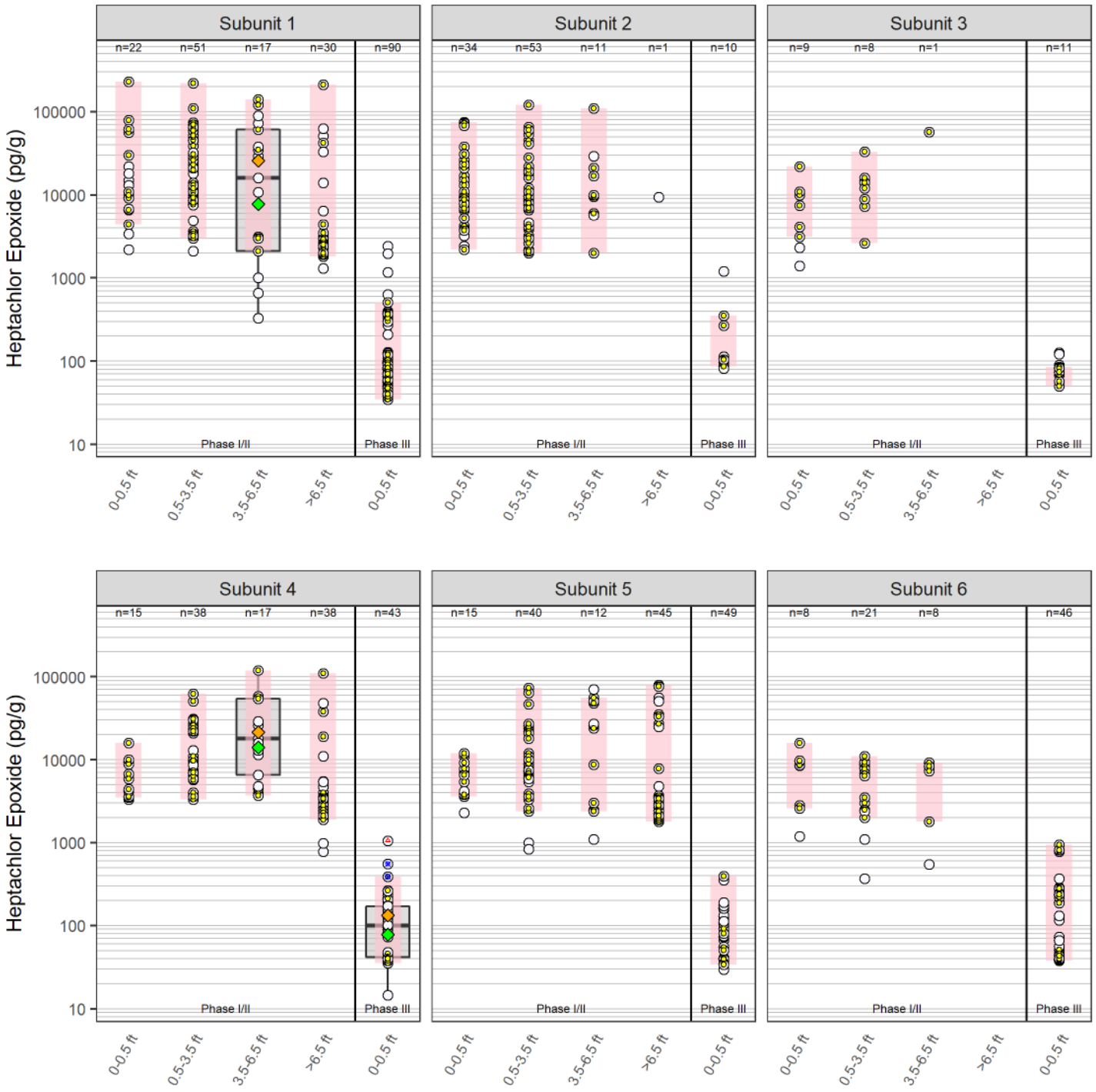
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Hexachlorobenzene was analyzed as a semi-volatile organic compound in Phase I/II and as a pesticide in Phase III. All Phase I results were non-detect.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

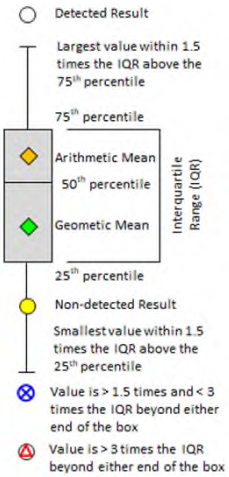
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - HEXACHLOROBENZENE

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-104





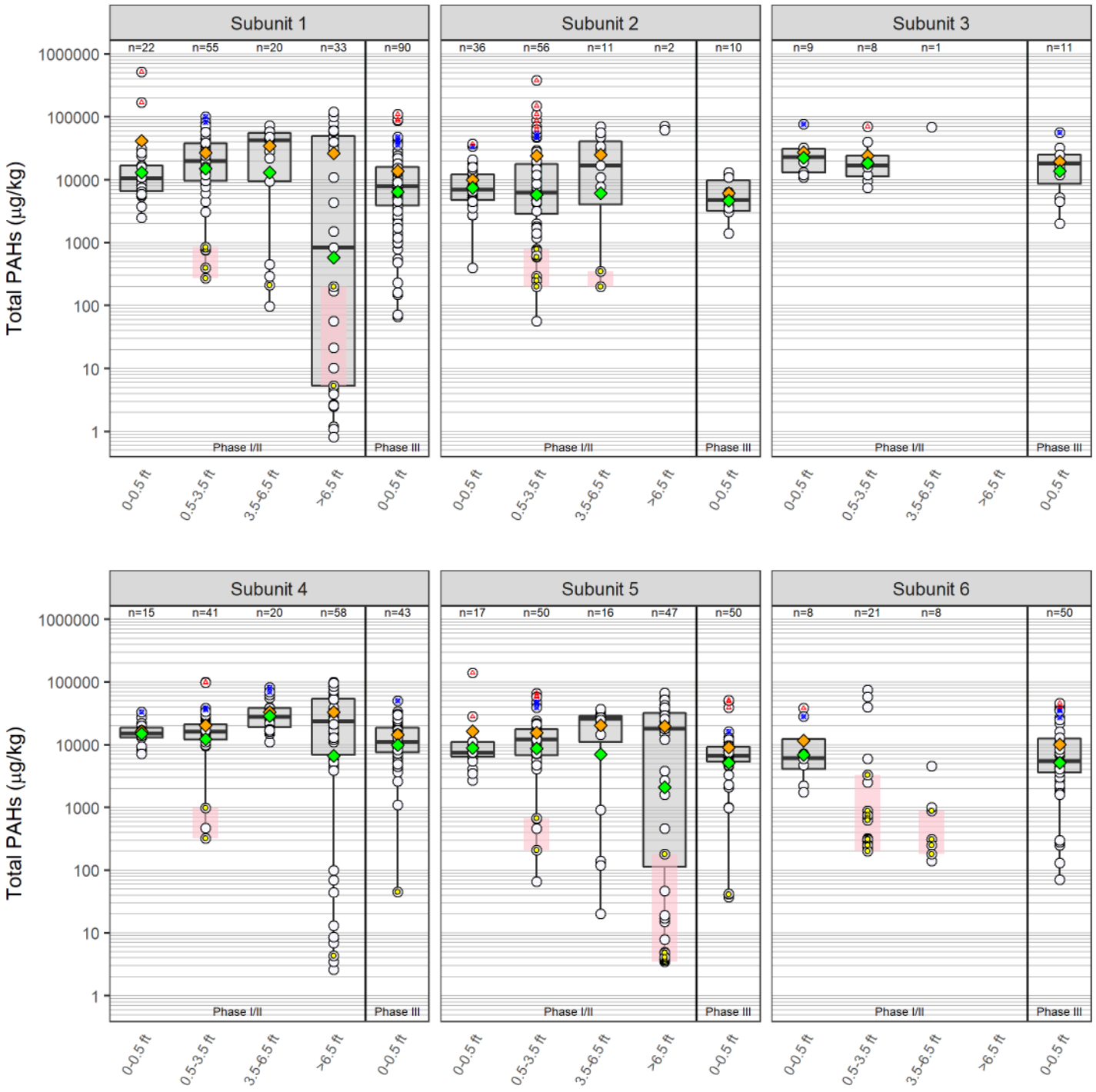
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

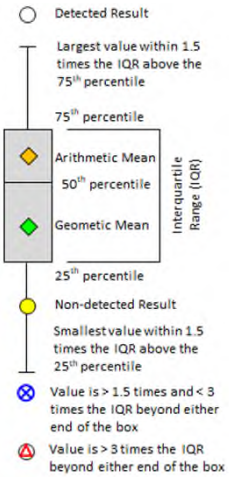
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - HEPTACHLOR EPOXIDE

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-105





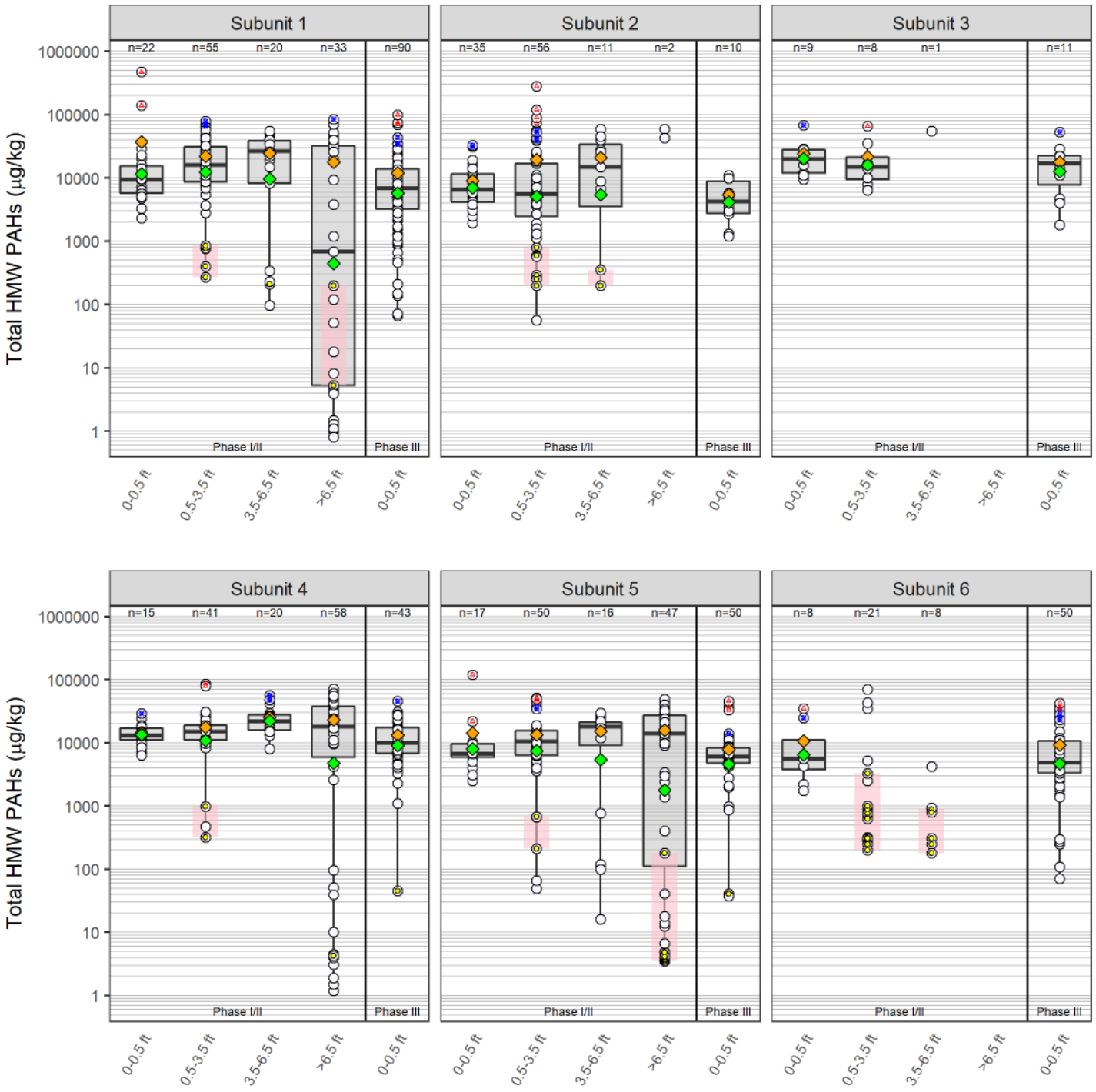
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

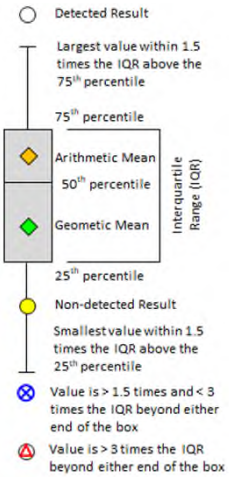
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL PAHS

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-106





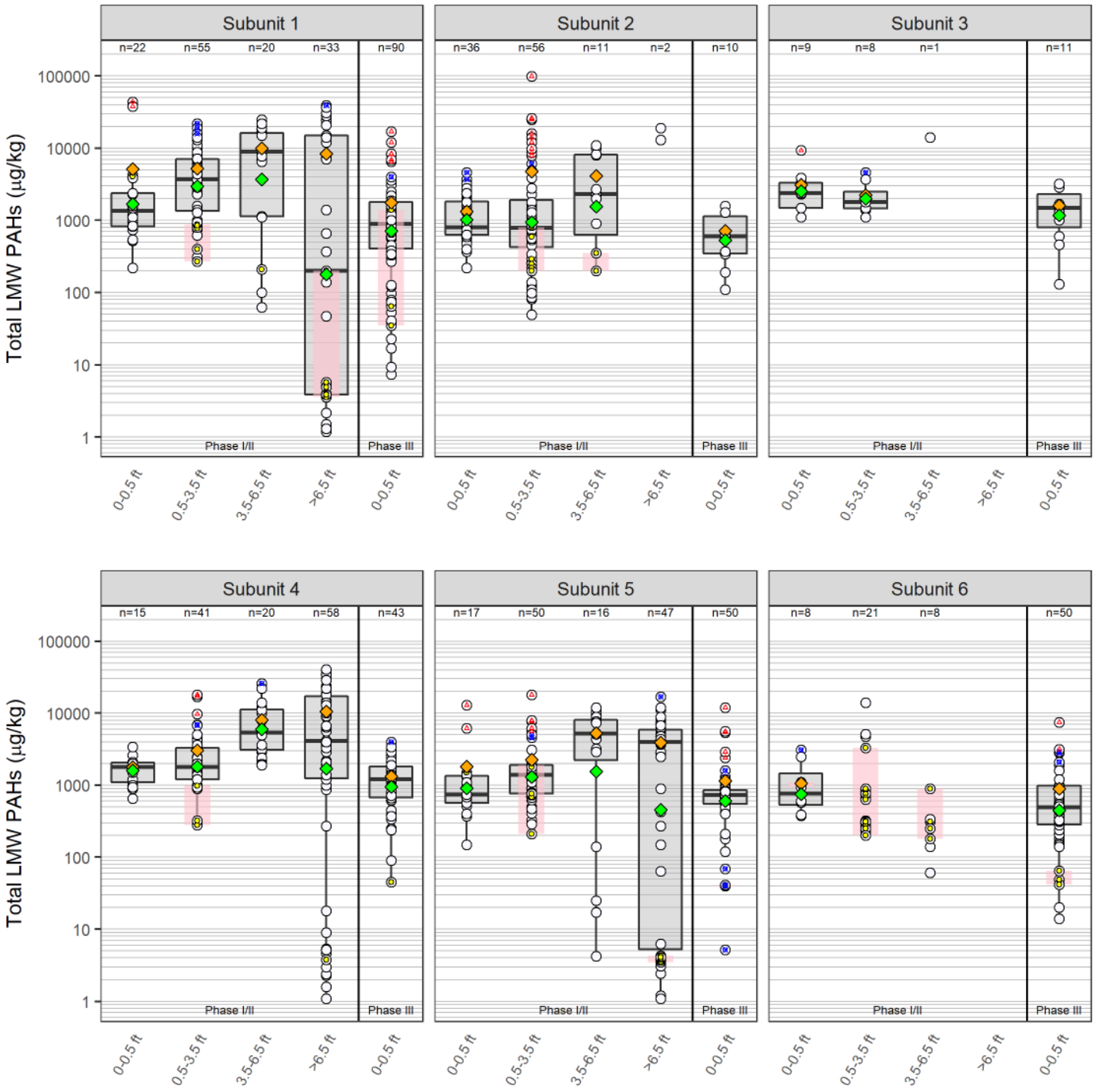
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

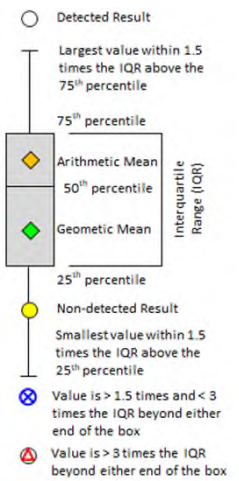
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL HMW PAHS

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-107





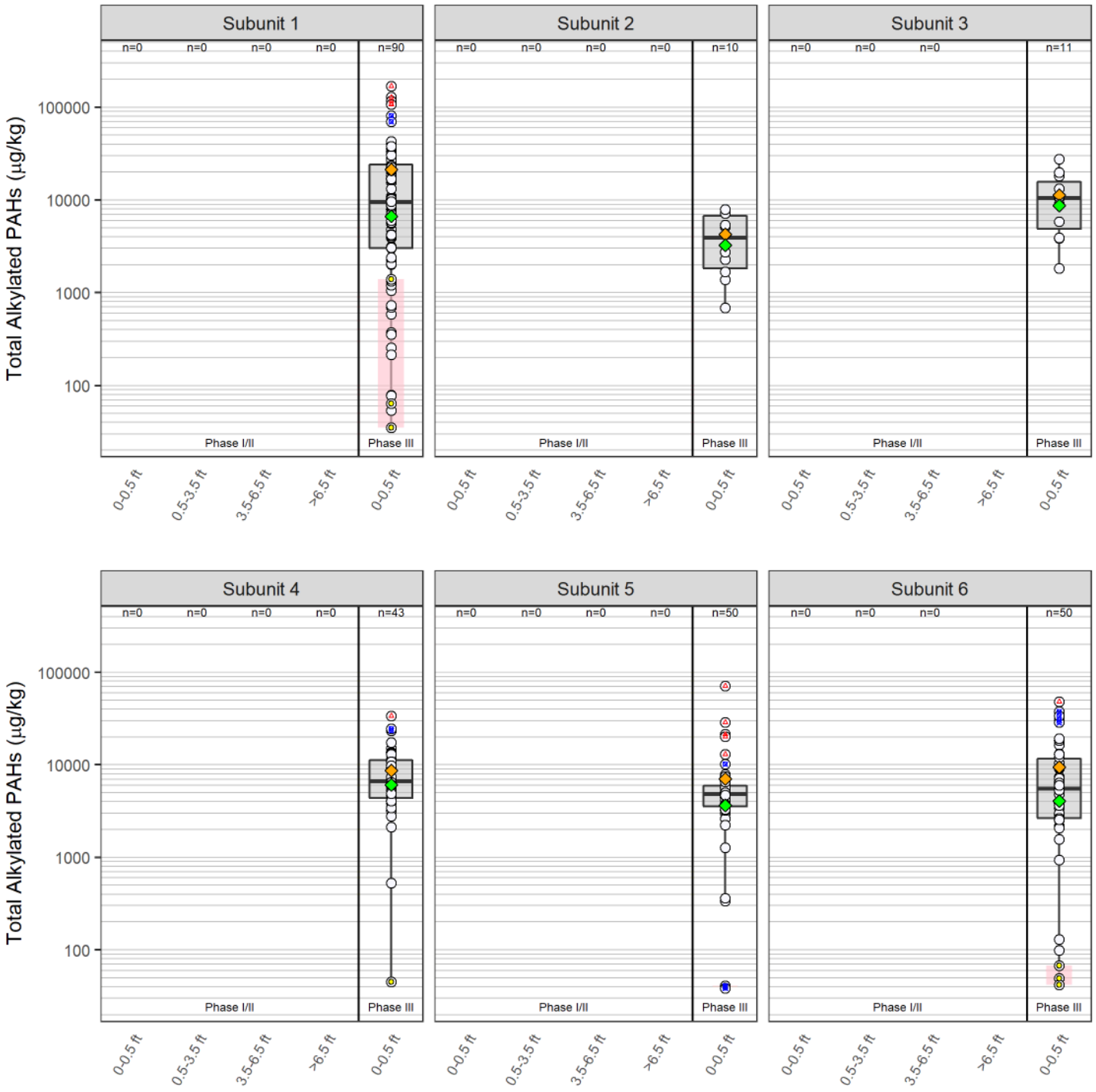
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

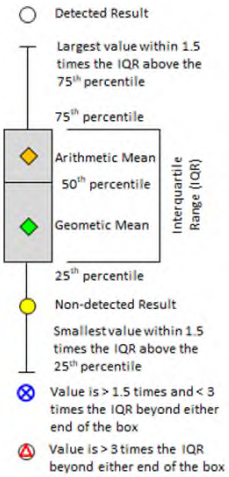
DIAMOND ALKALI SUPERFUND SITE
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REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL LMW PAHS

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-108





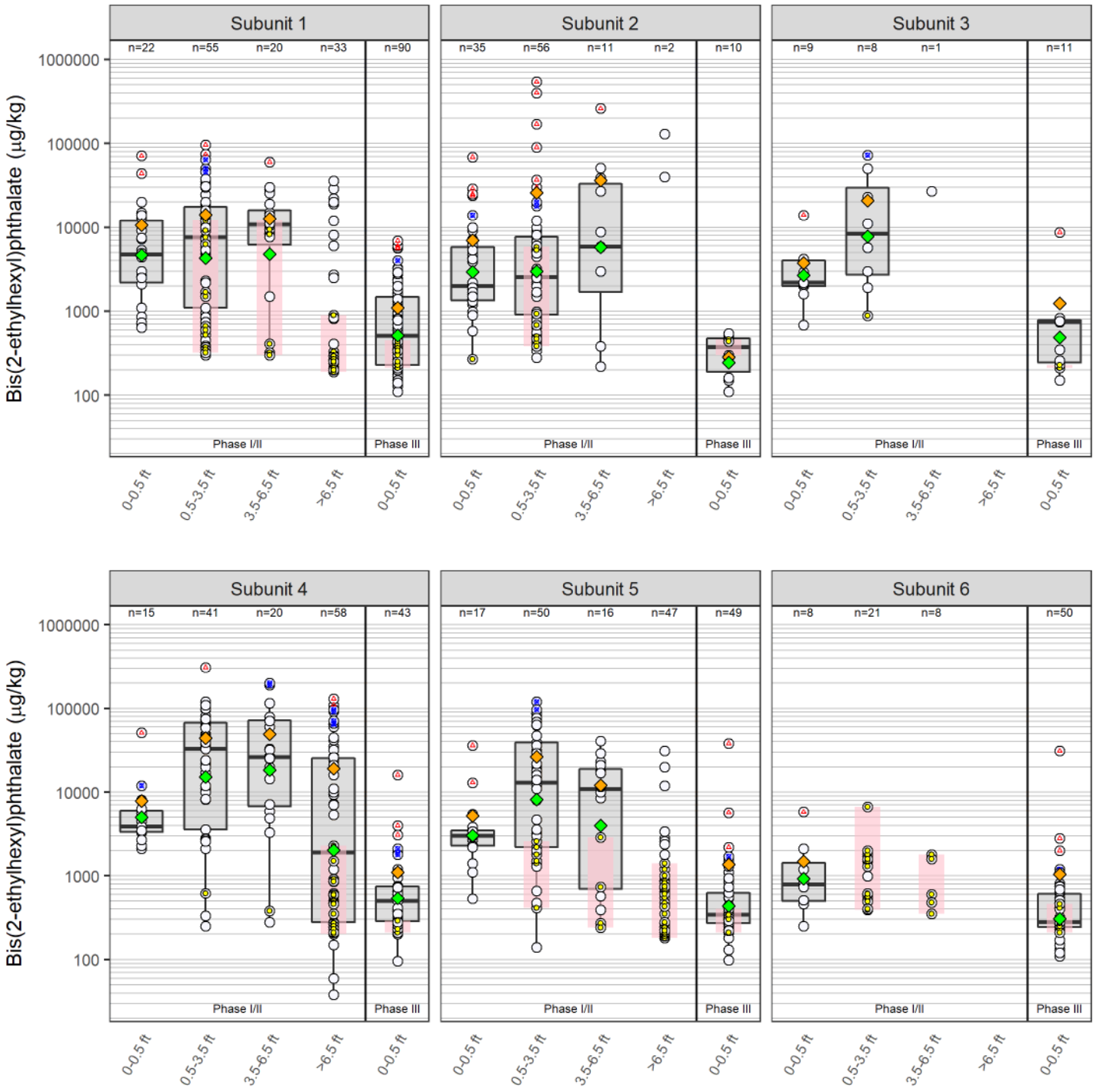
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Alkylated PAHs were not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

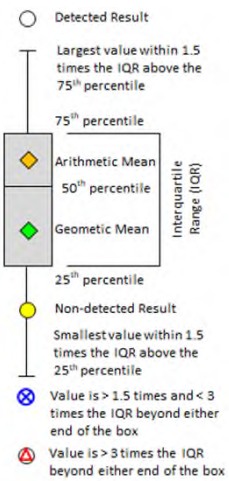
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL ALKYLATED PAHS

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A subsidiary of Occidental Petroleum Corporation

FIGURE
F-109





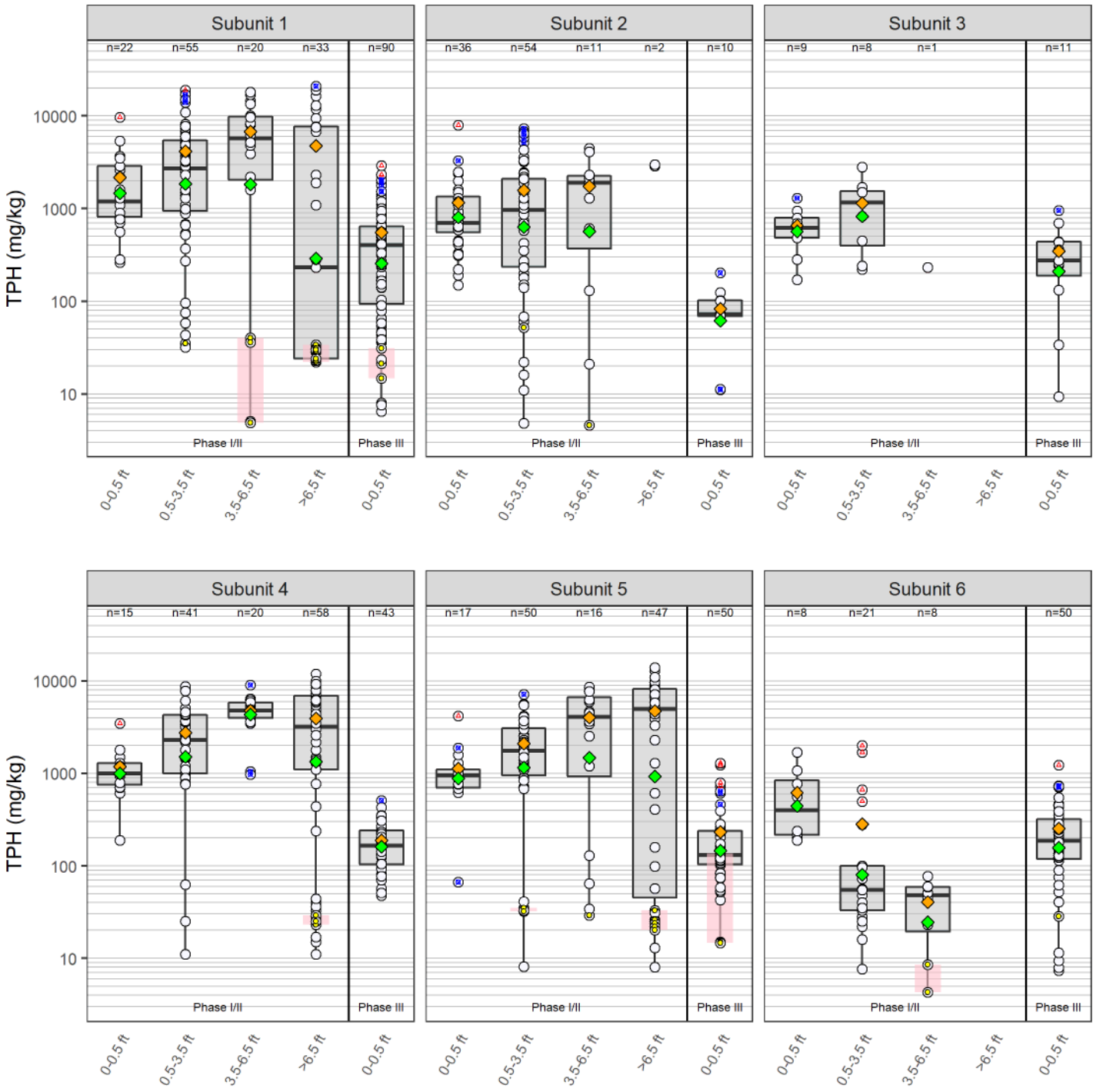
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

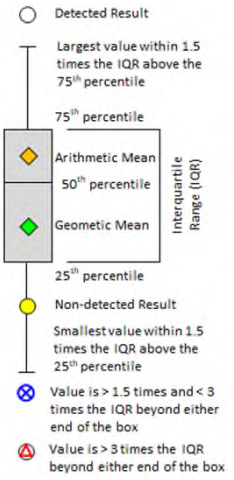
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - BIS(2-ETHYLHEXYL)PHTHALATE

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-110





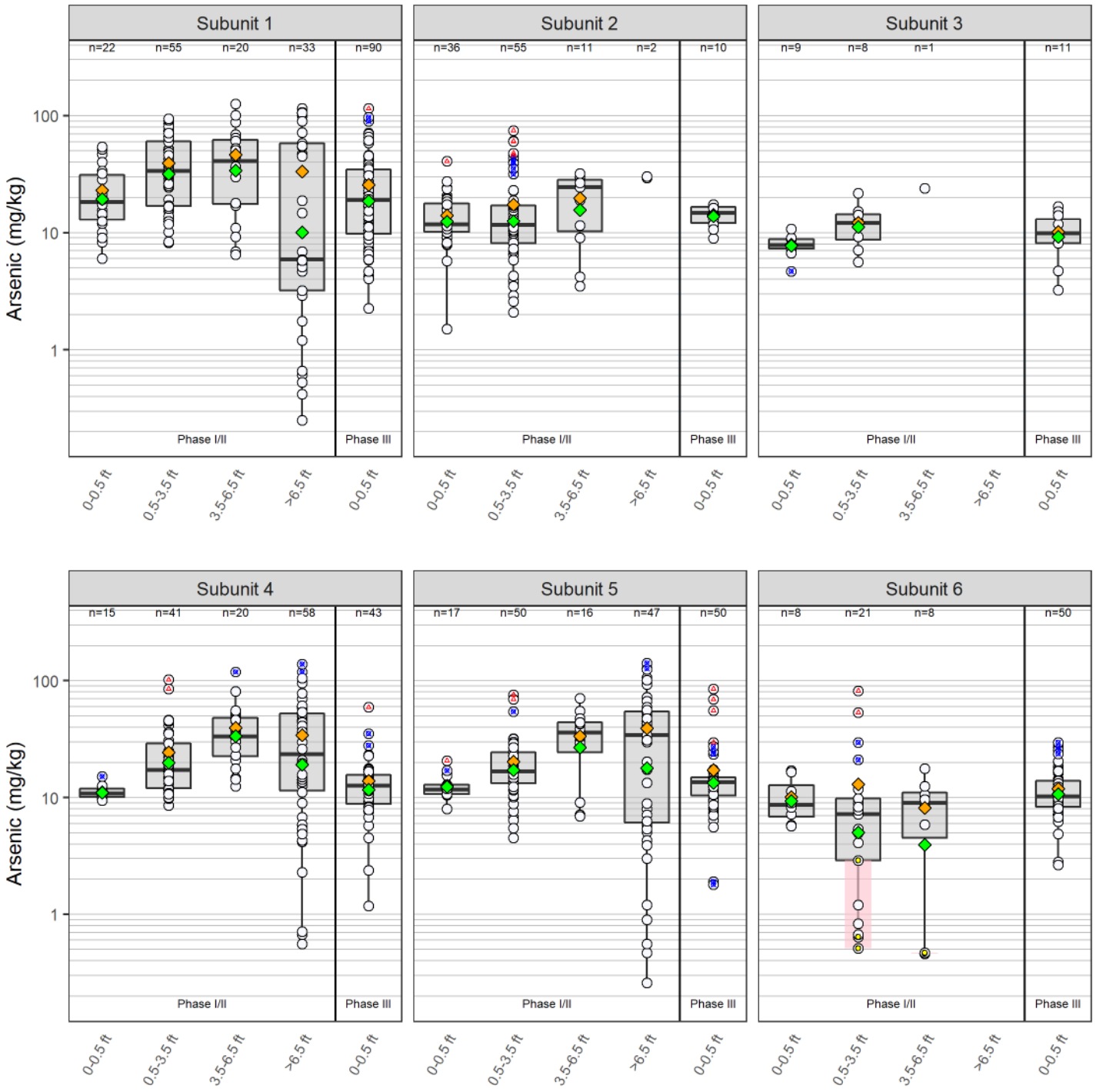
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.
The Phase I/II TPH data represent total extractable petroleum hydrocarbons (TEPH) whereas Phase III TPH data represent C9-C40 hydrocarbons.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TPH

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-111



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

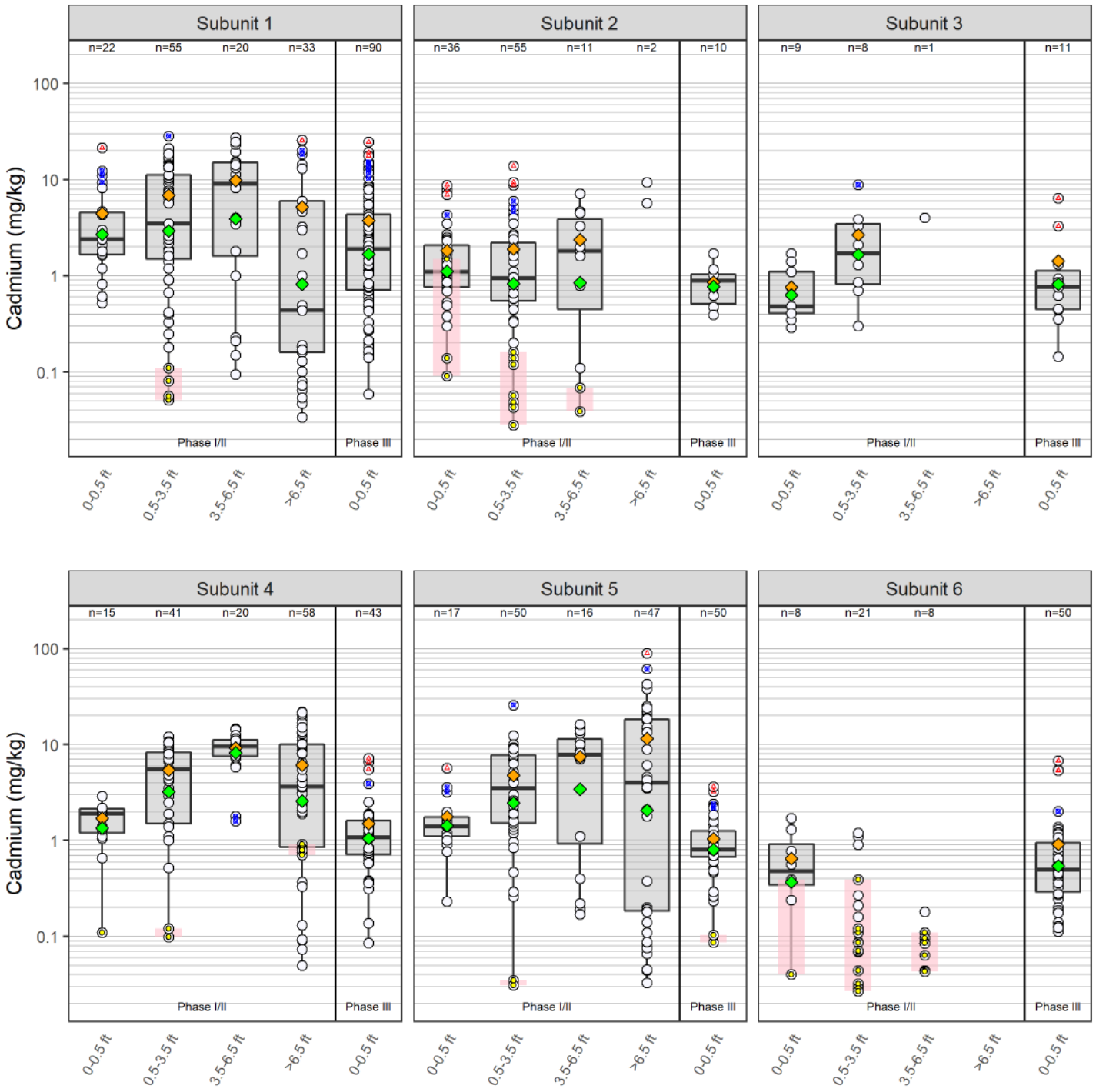
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

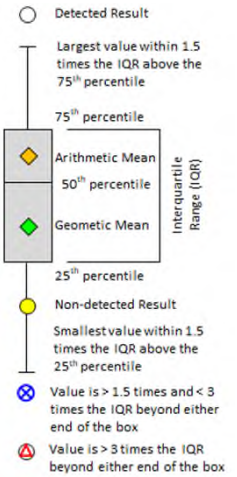
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REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - ARSENIC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-112





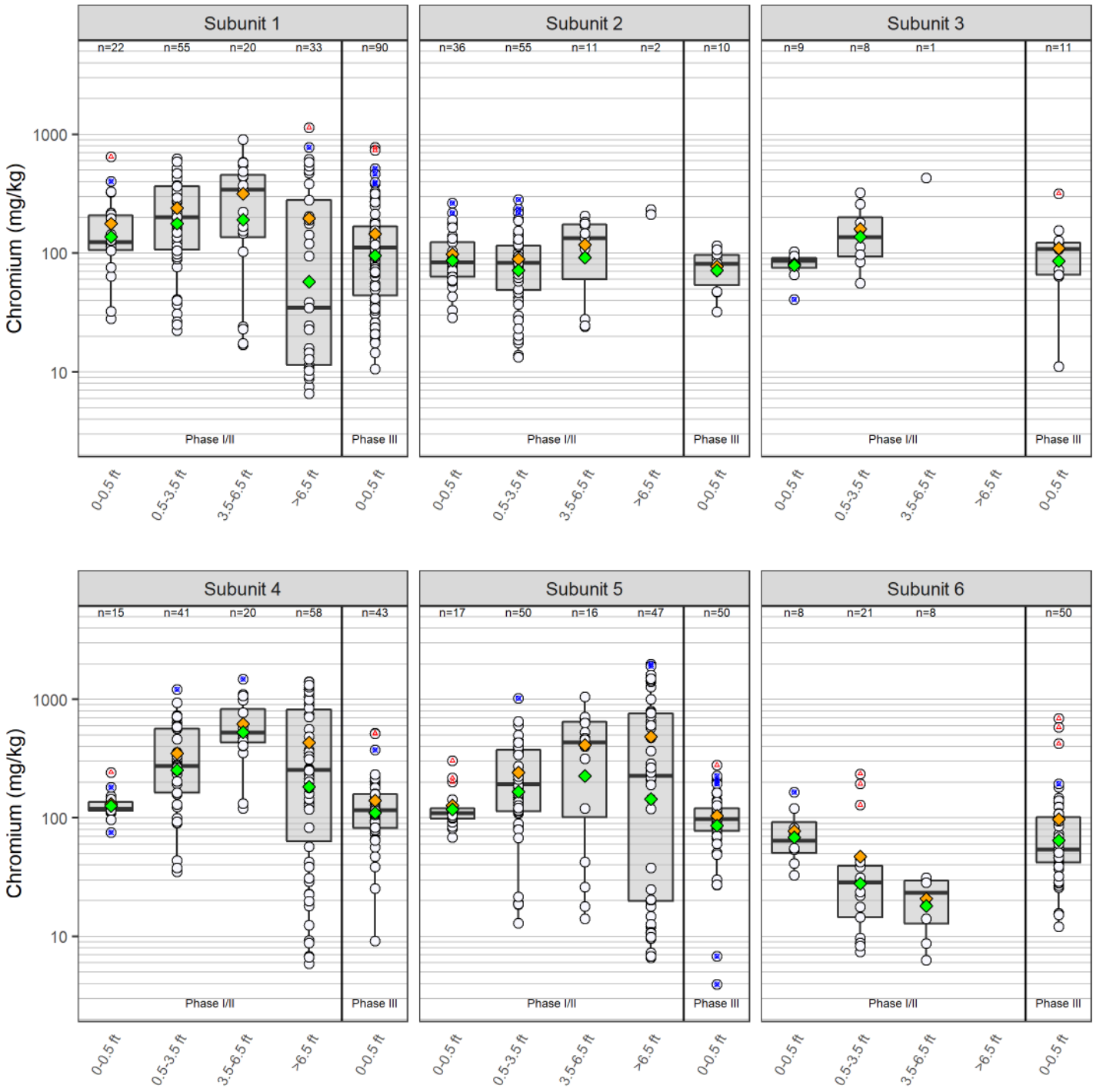
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

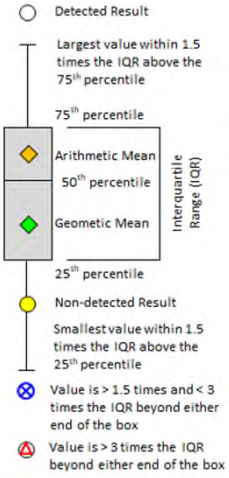
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - CADMIUM

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-113





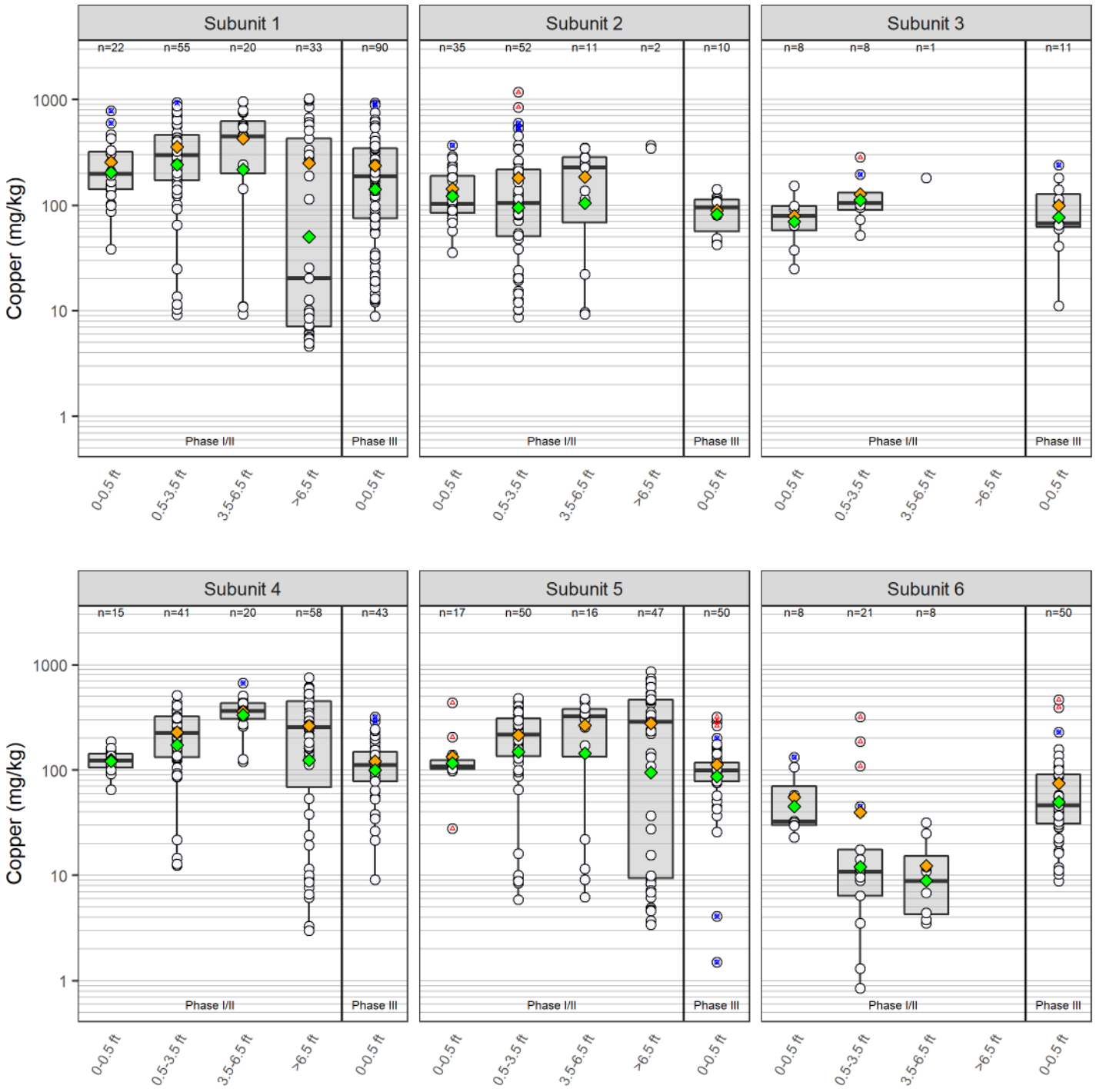
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - CHROMIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-114



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometric Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

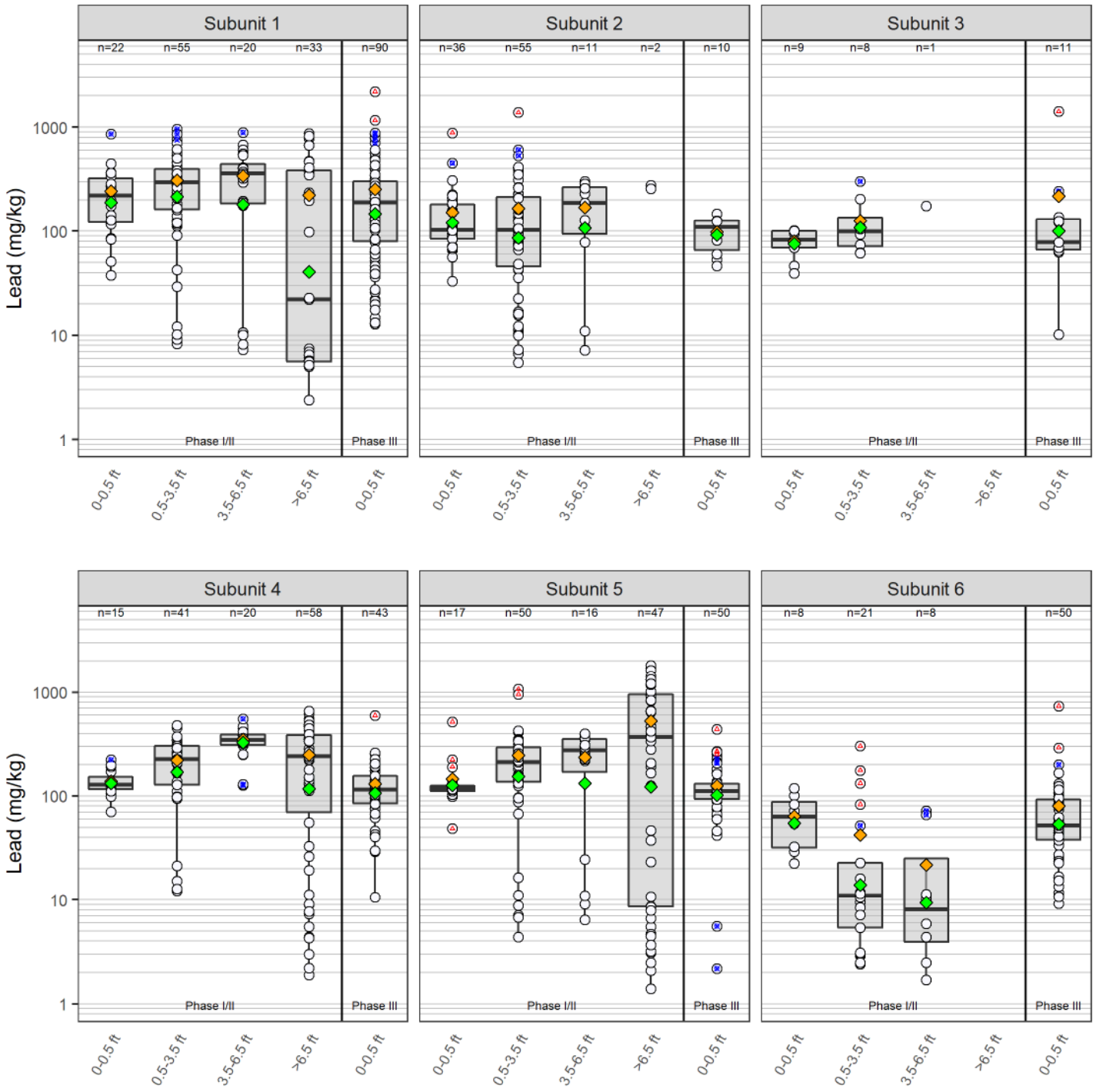
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - COPPER

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-115



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometric Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

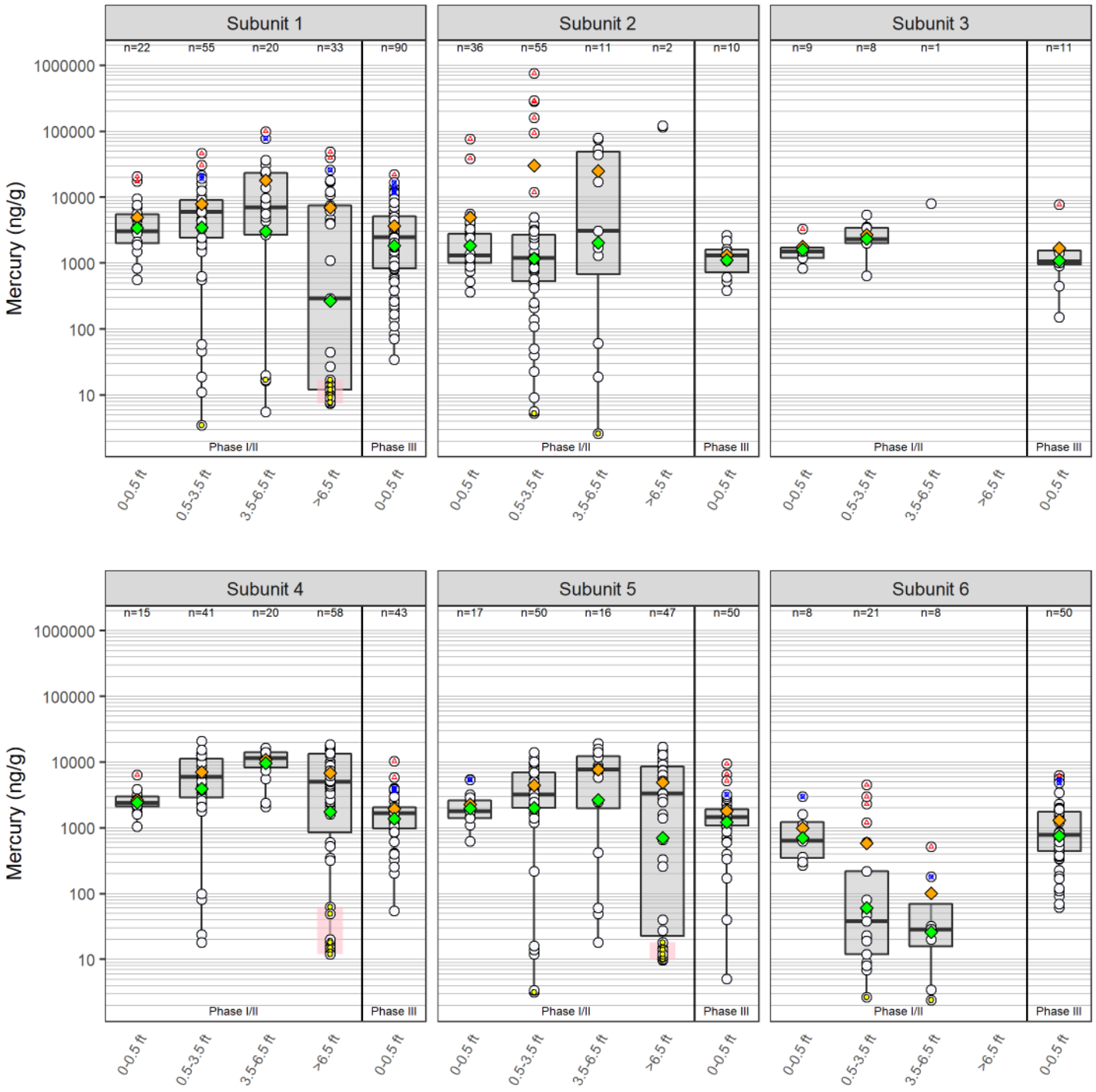
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - LEAD

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-116



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

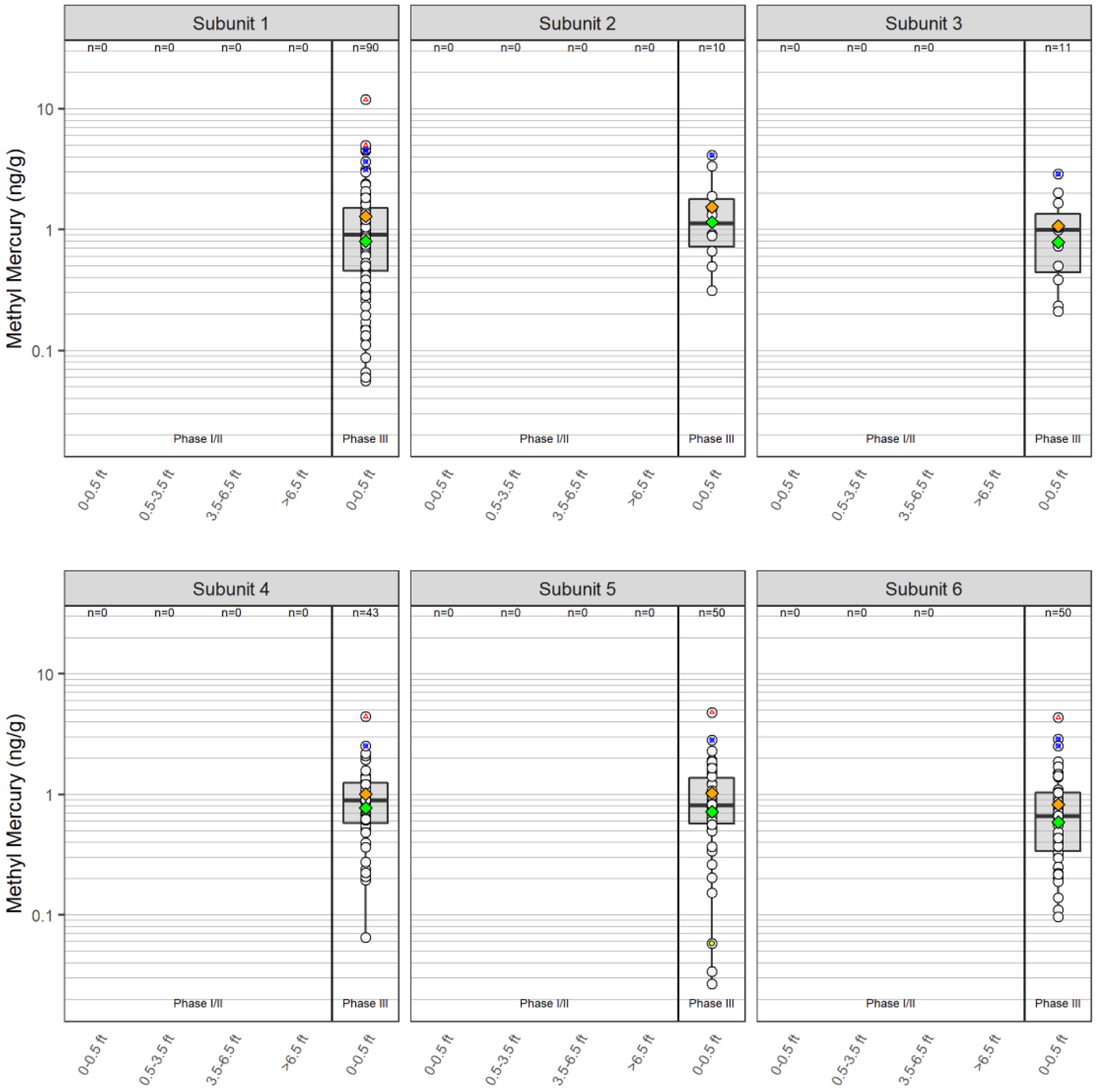
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

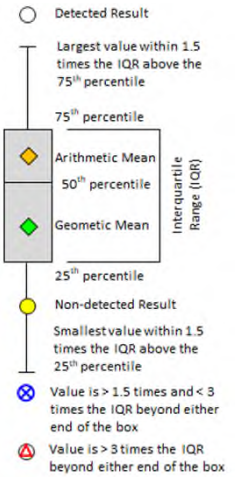
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - MERCURY

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-117





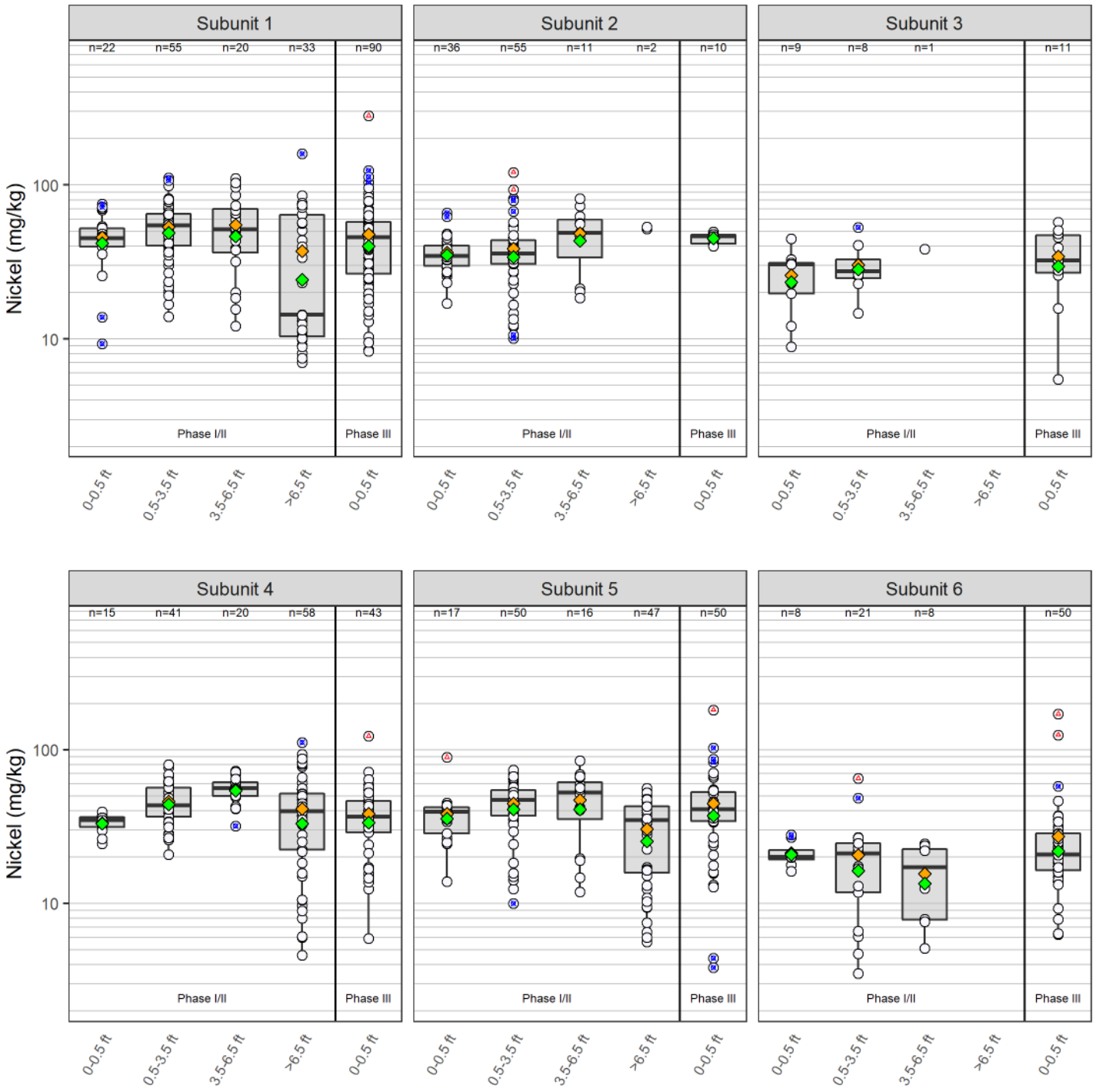
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Methyl mercury was not analyzed in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

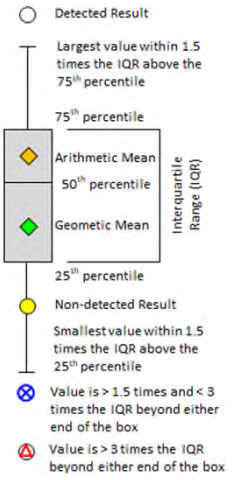
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - METHYL MERCURY

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-118





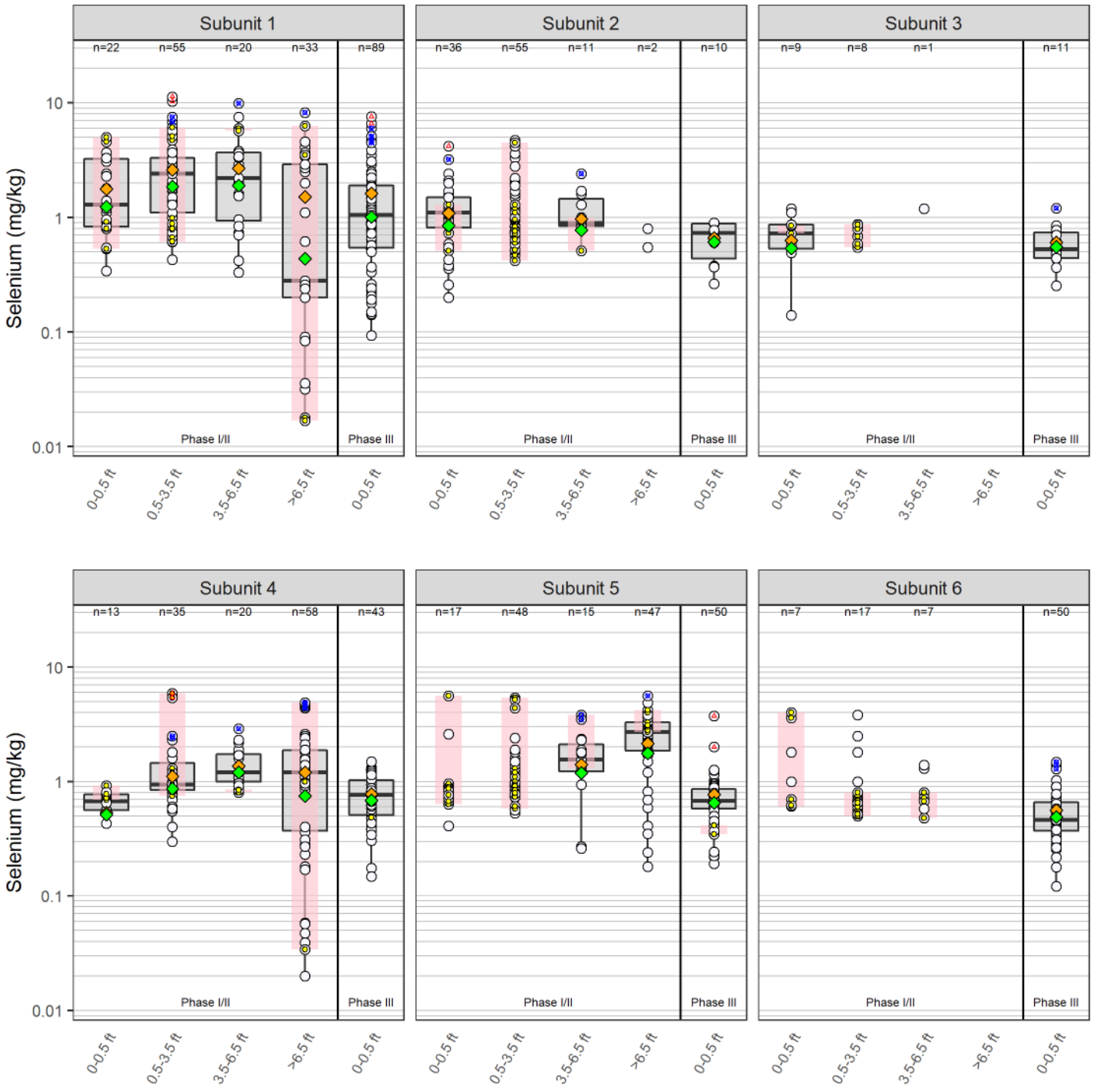
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

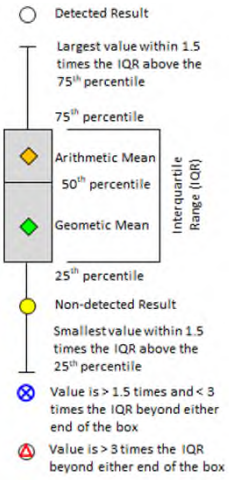
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - NICKEL

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-119





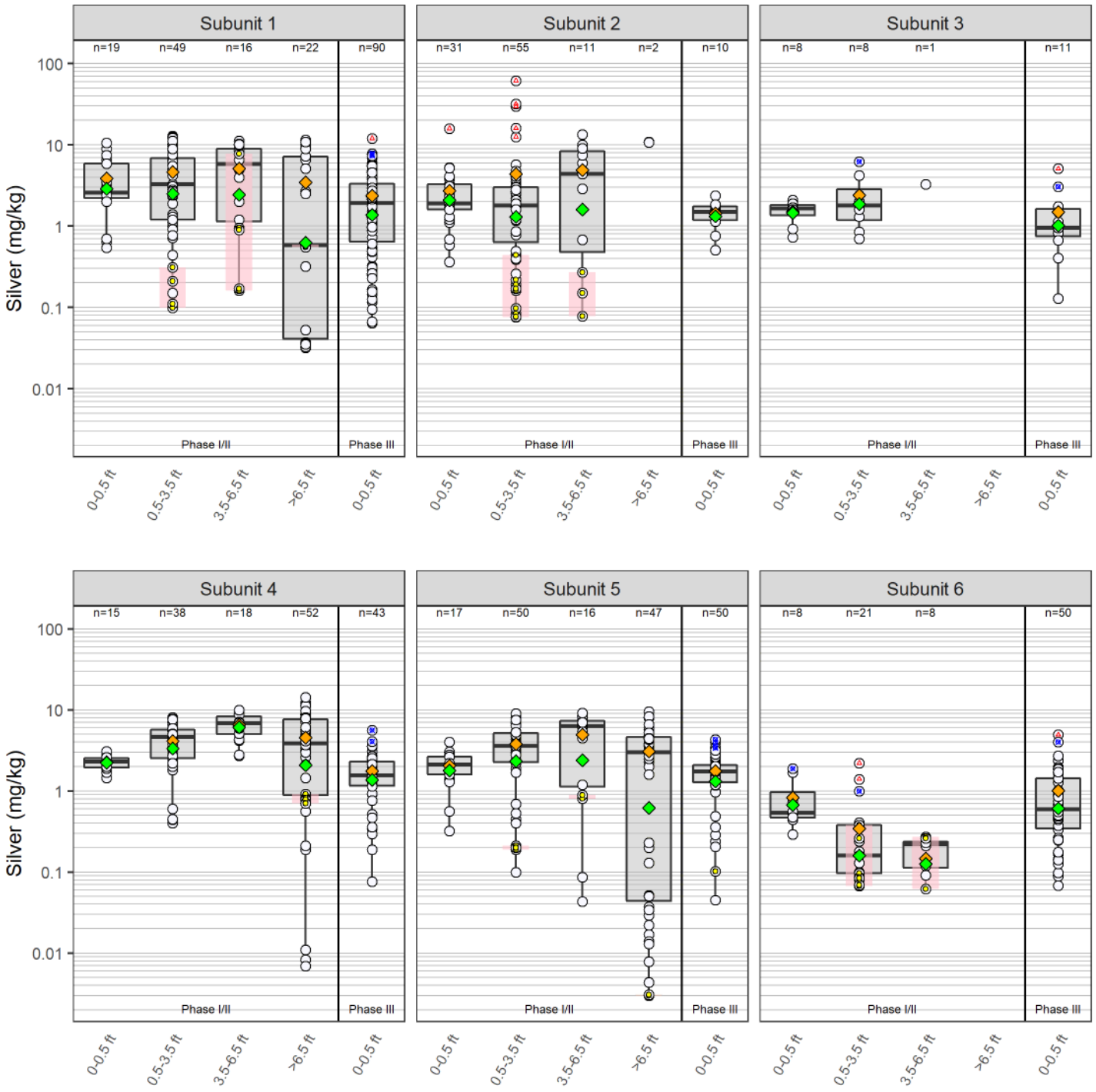
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

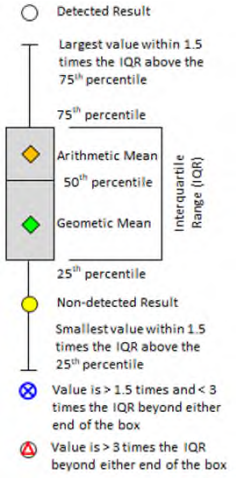
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - SELENIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-120





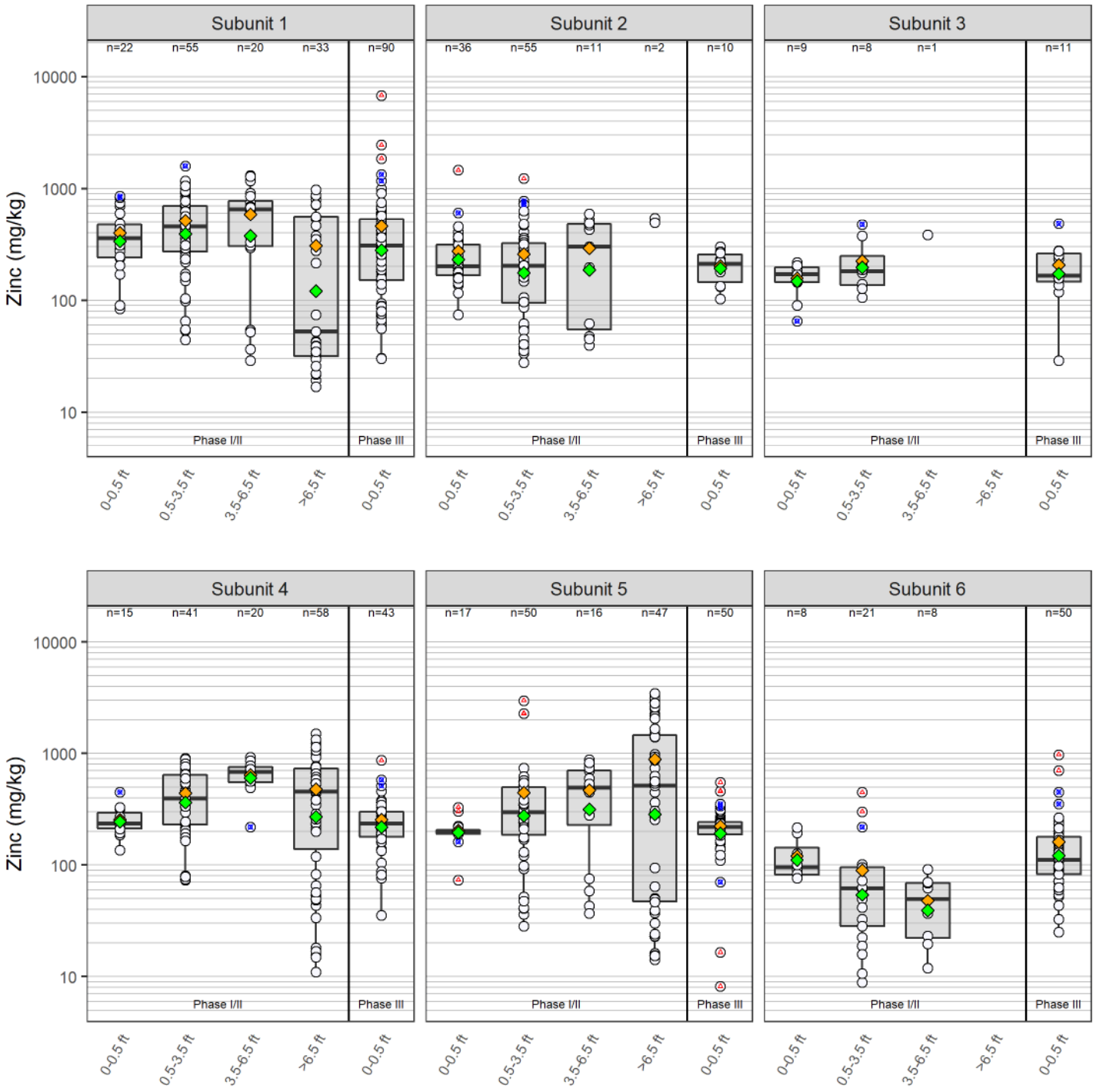
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

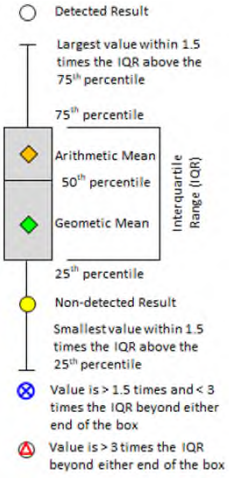
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - SILVER

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-121





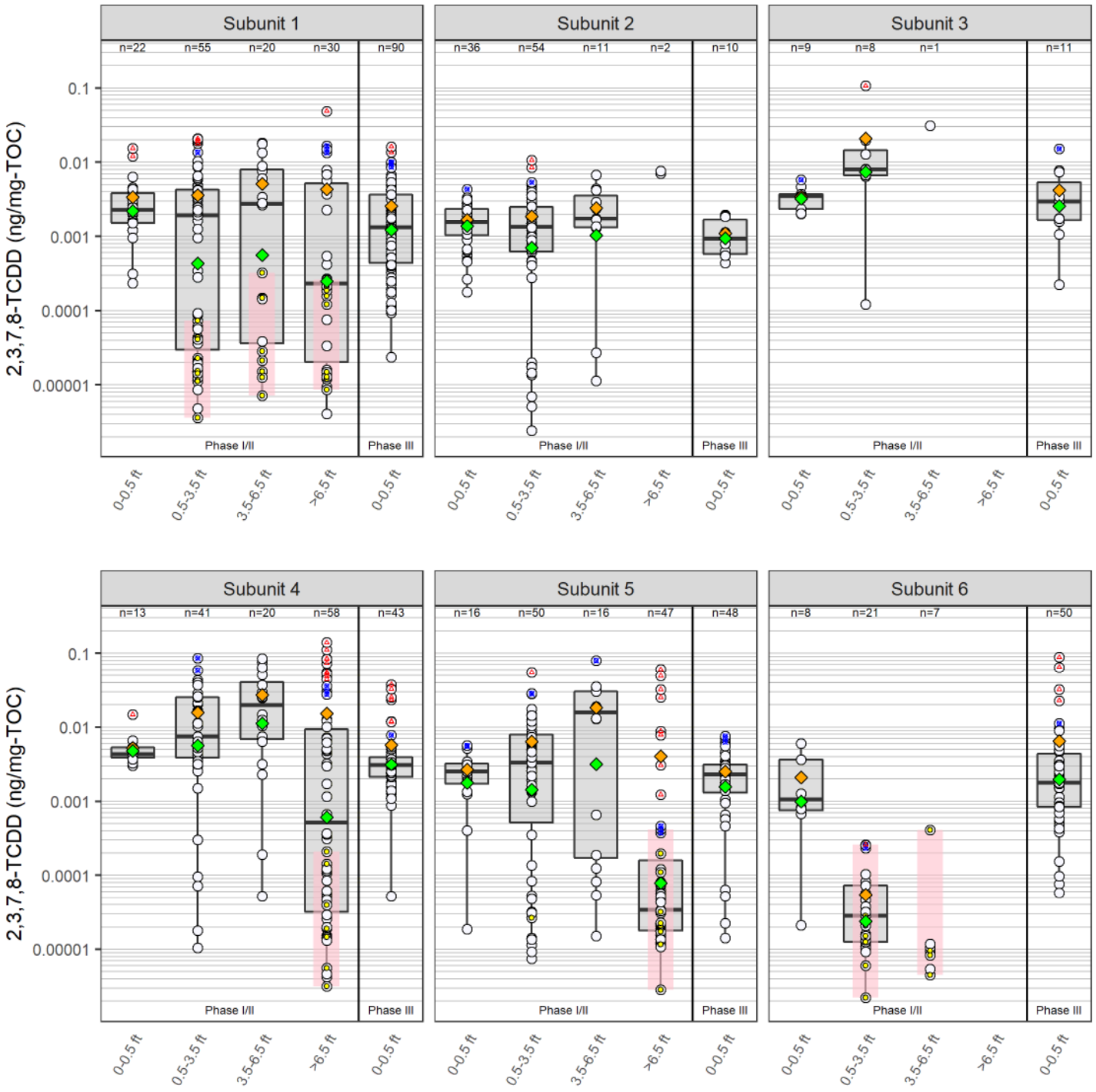
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

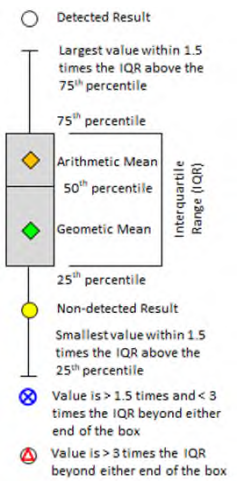
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - ZINC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-122





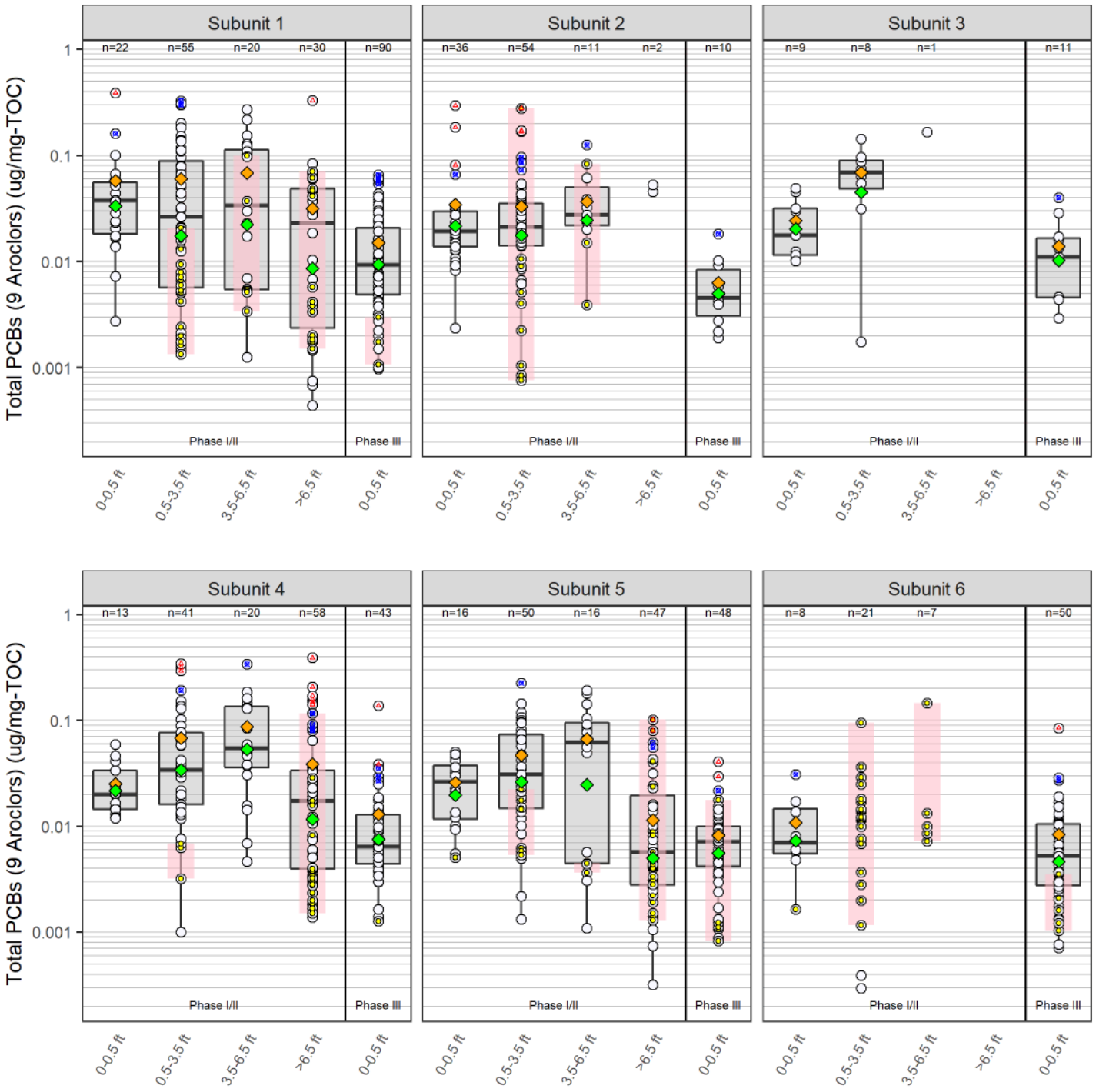
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - 2,3,7,8-TCDD-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-123



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometric Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

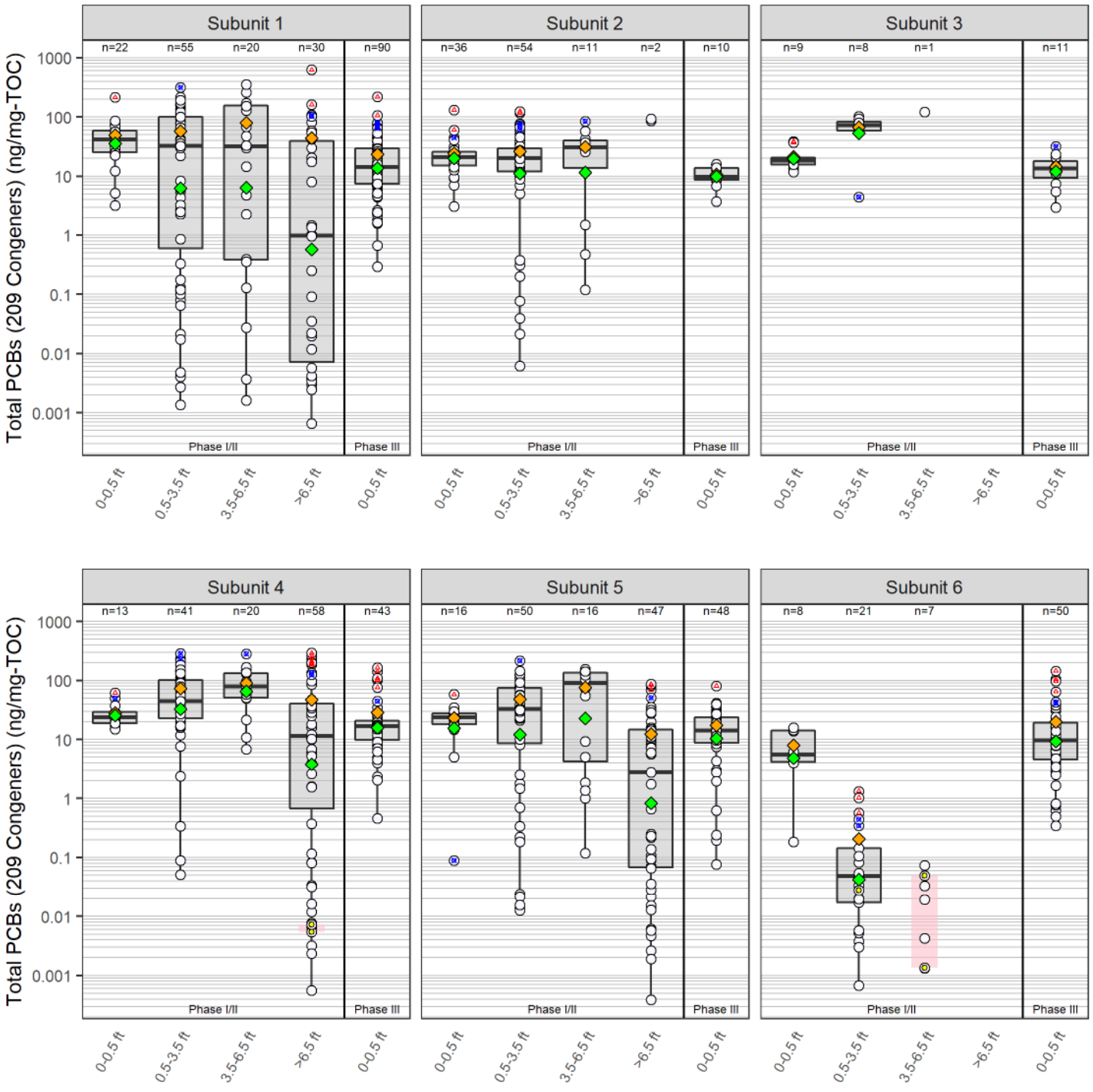
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

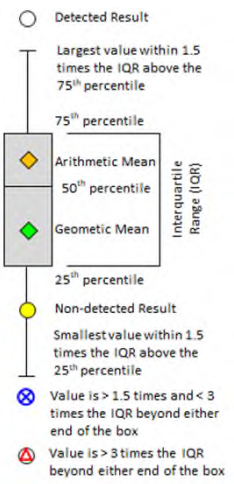
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL PCBS (9 AROCLORS)-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-124





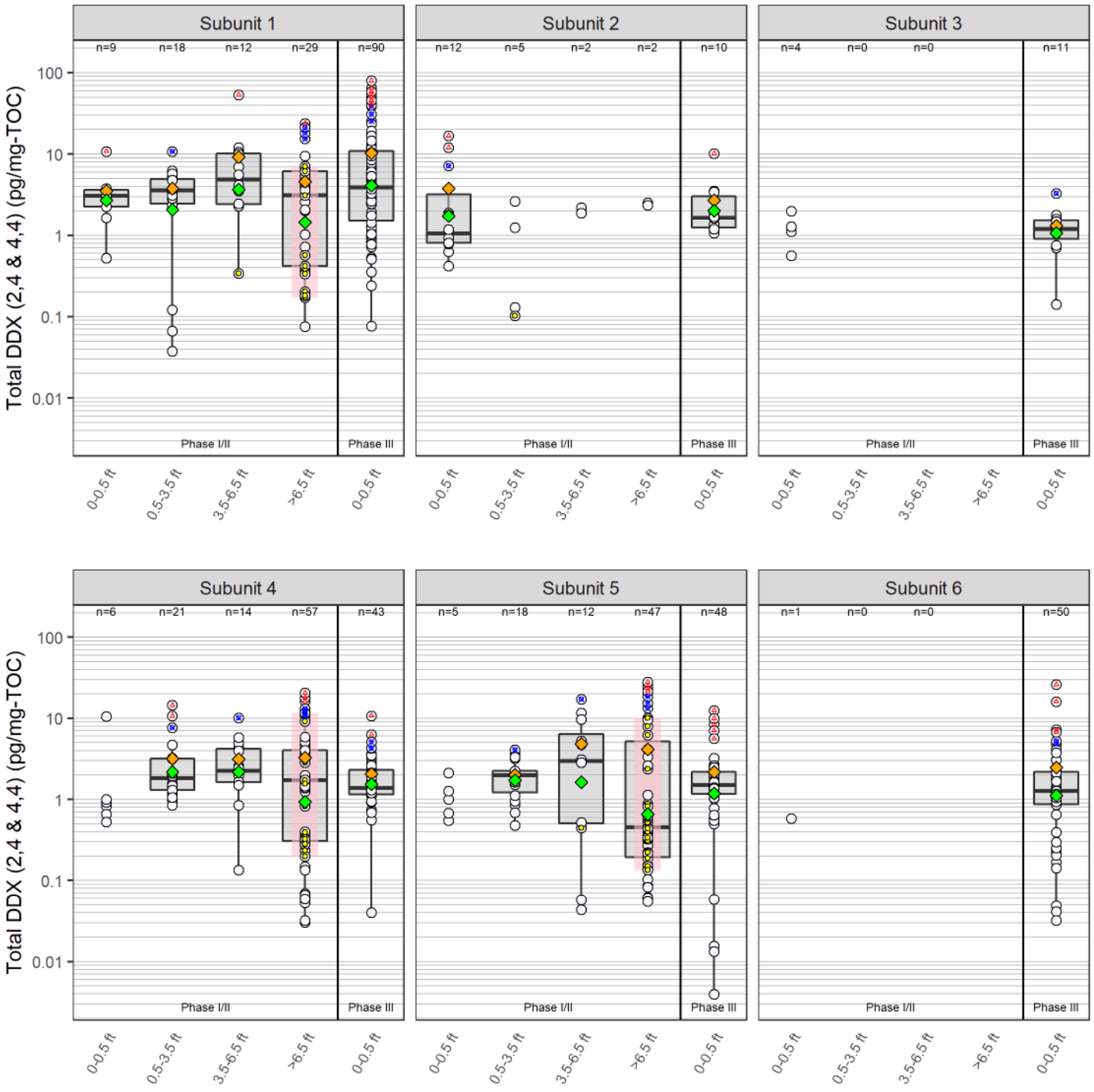
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

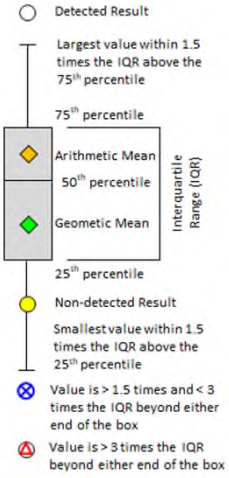
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL PCB (209 CONGENERS)-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-125





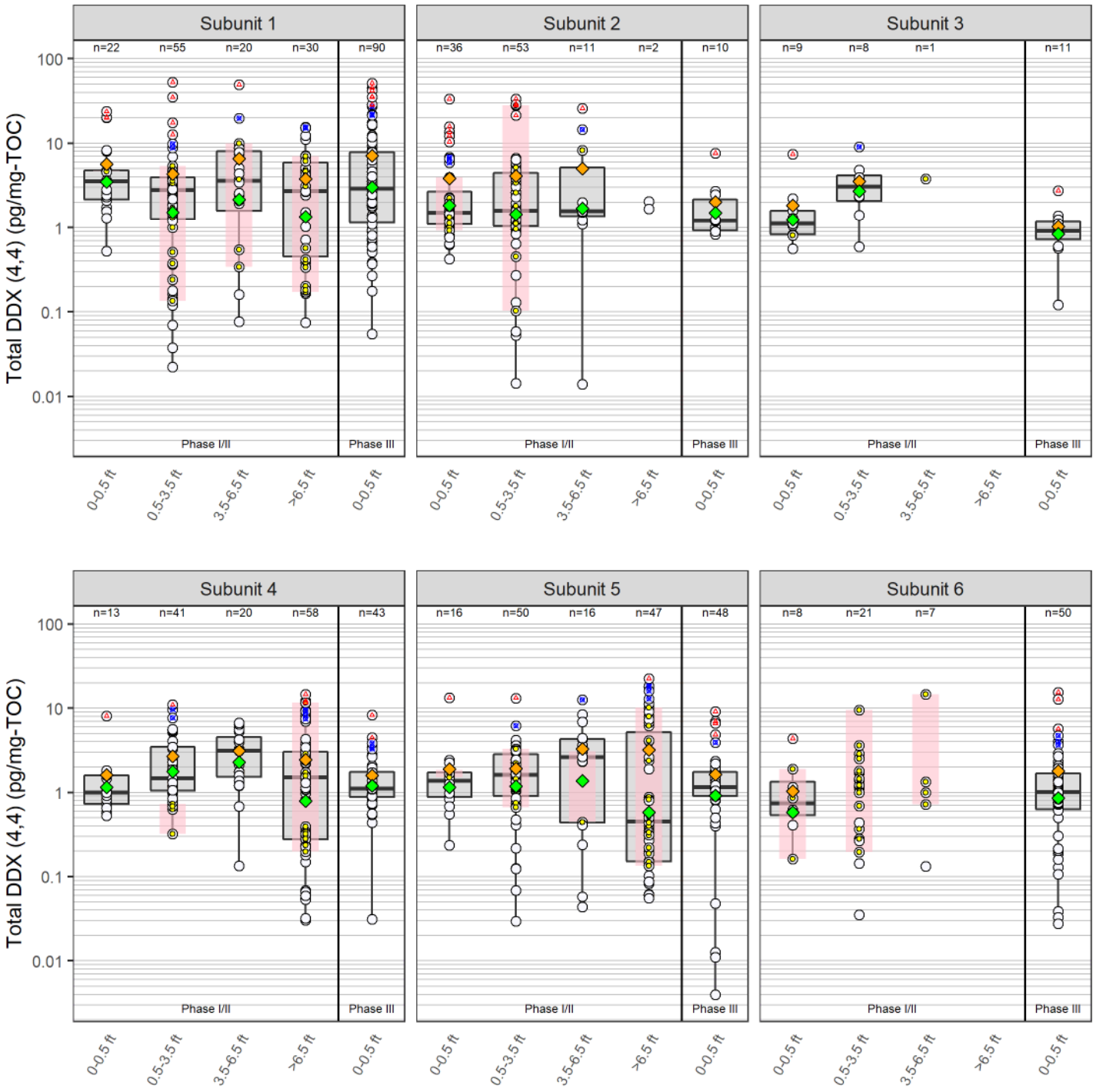
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

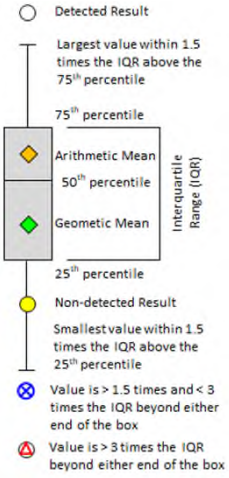
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL DDX (2,4 & 4,4)-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-126





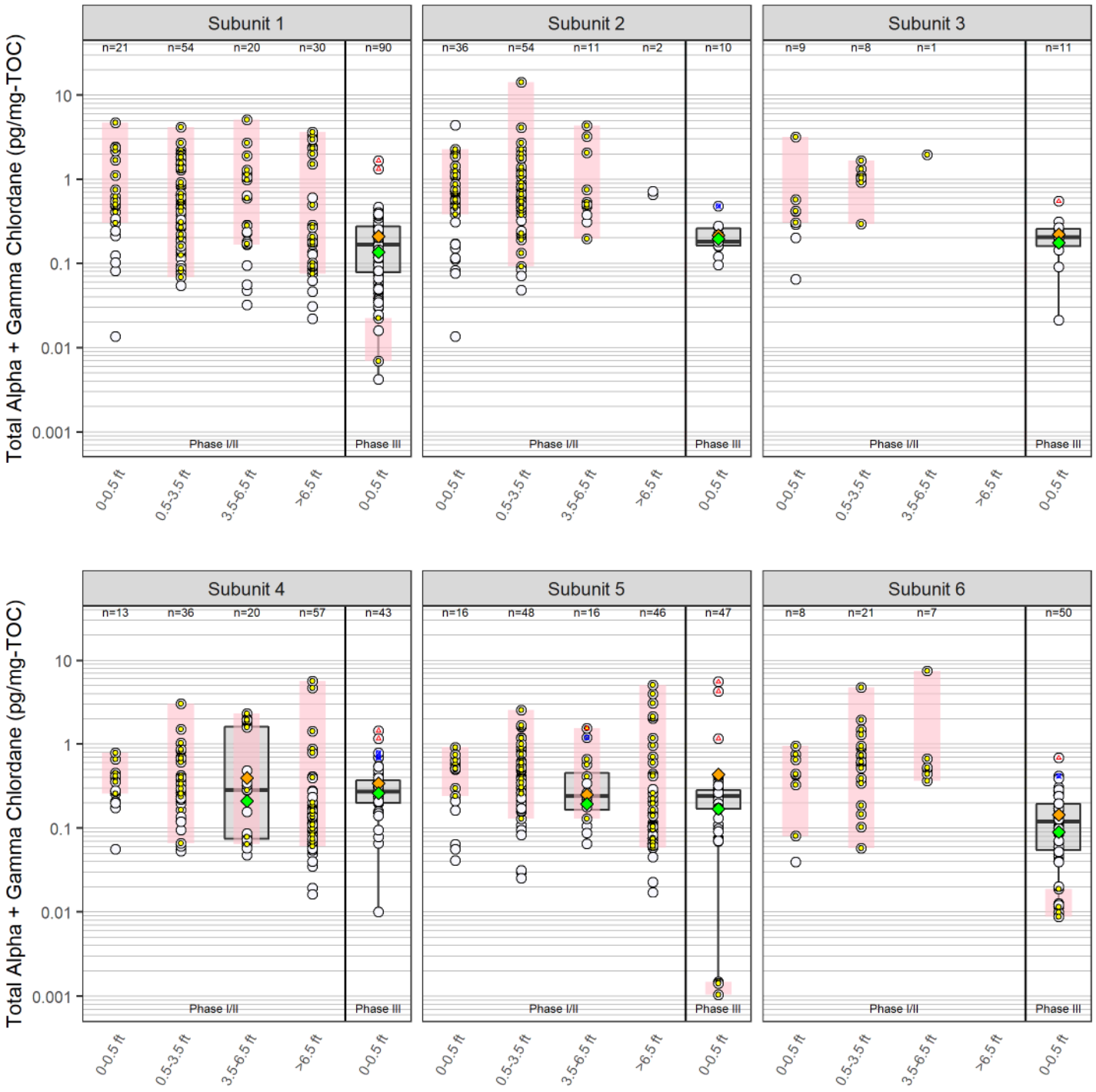
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

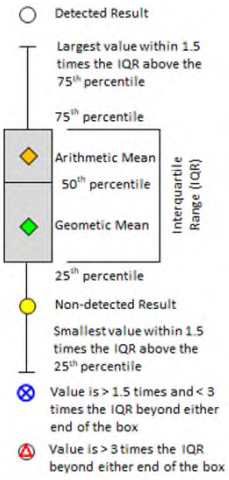
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL DDX (4,4)-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-127





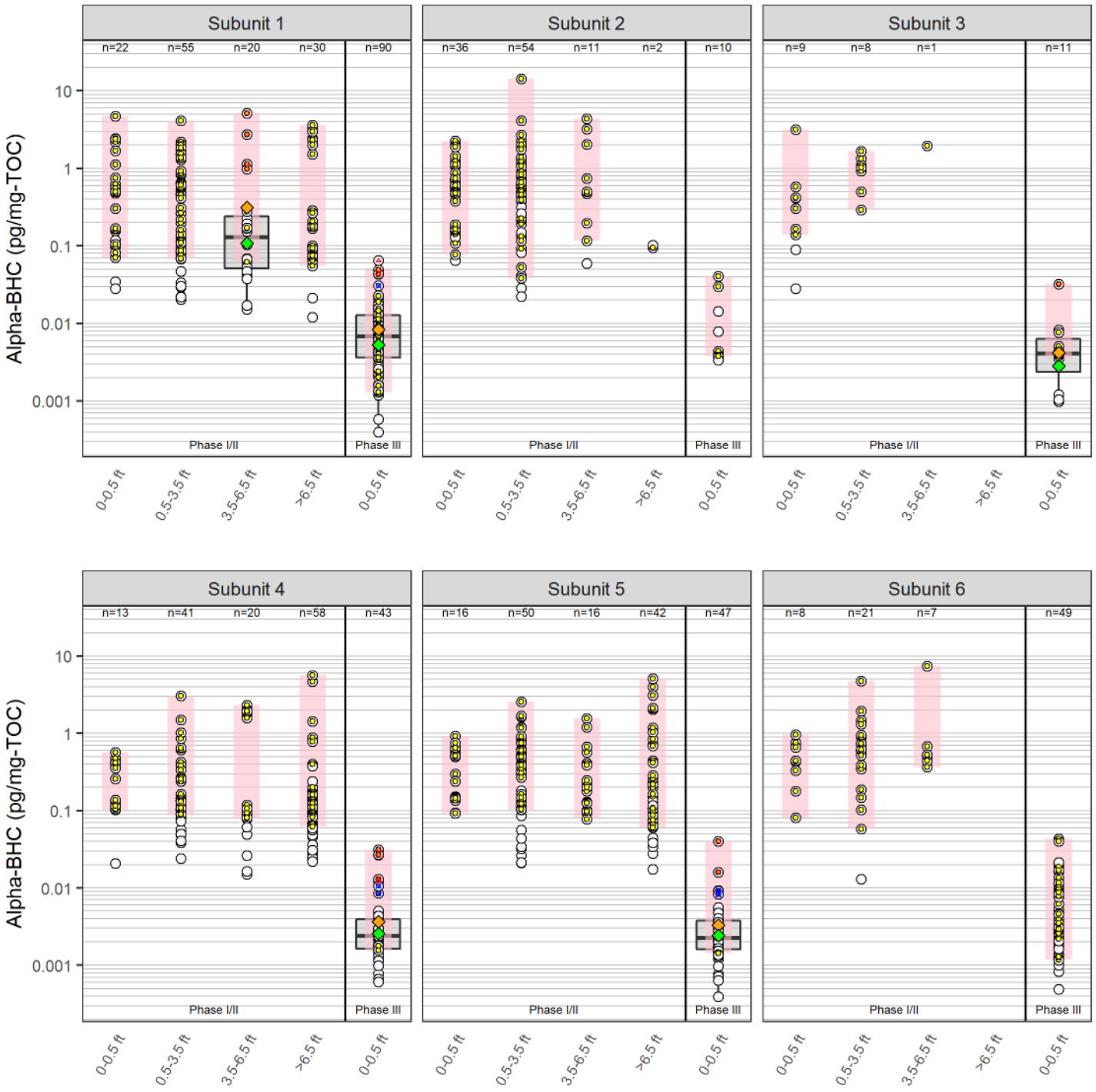
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

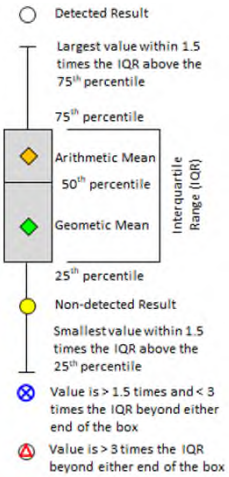
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL ALPHA + GAMMA CHLORDANE-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-128





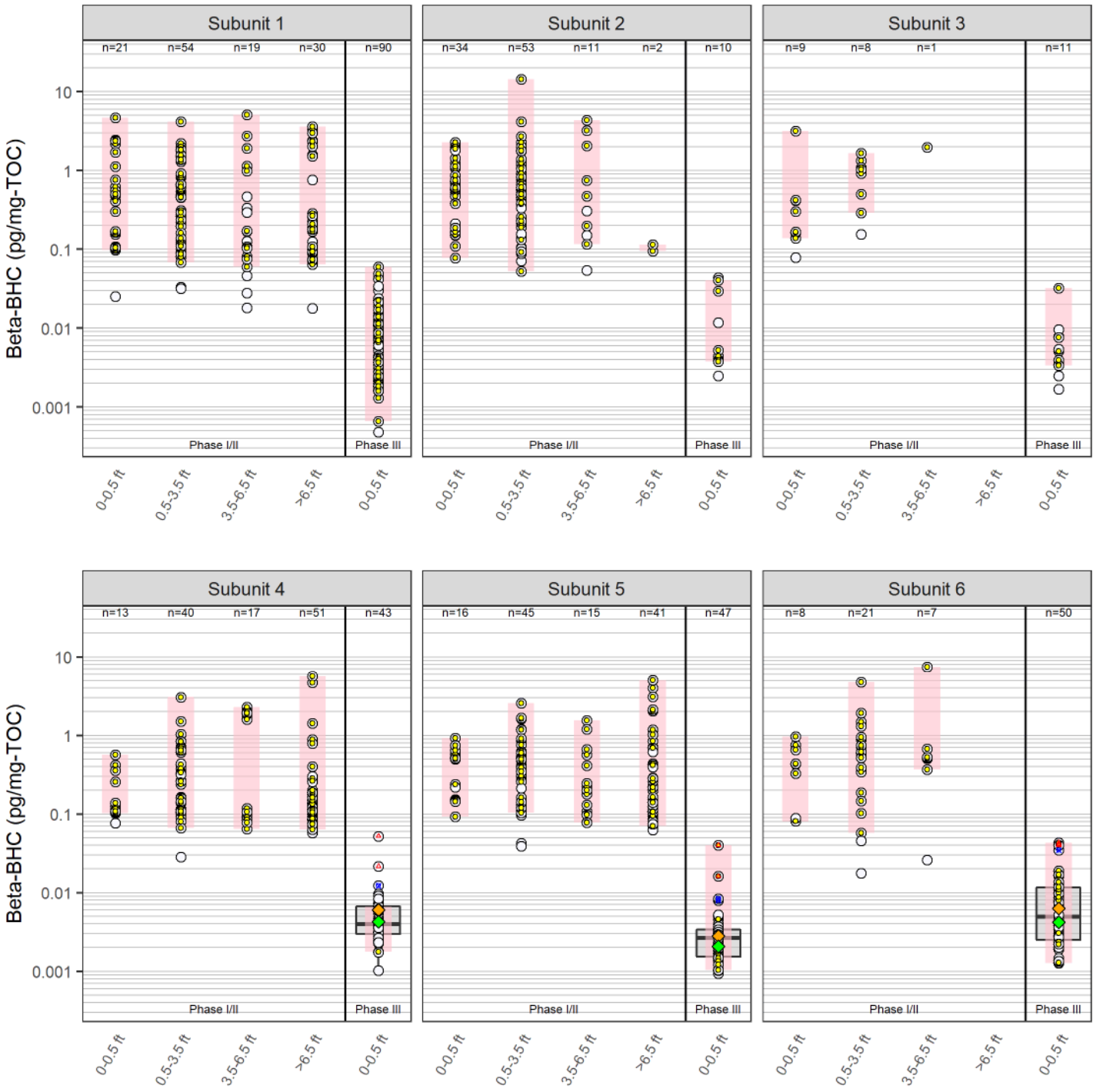
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

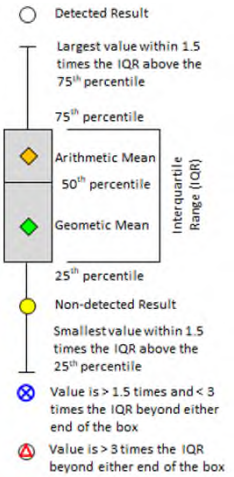
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - ALPHA-BHC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-129





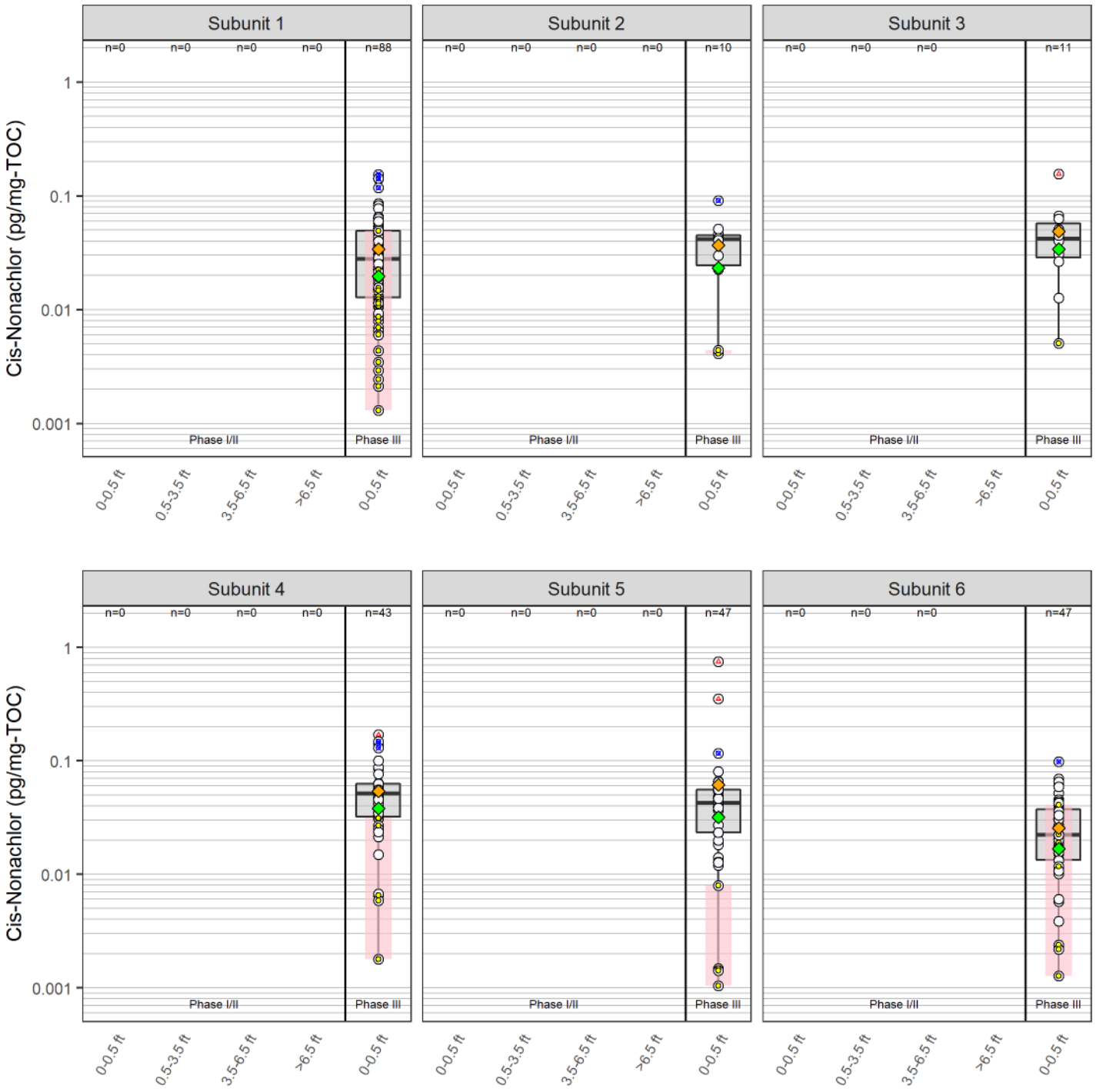
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

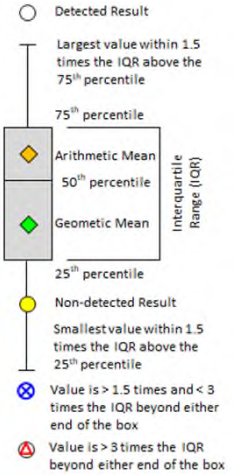
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - BETA-BHC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-130





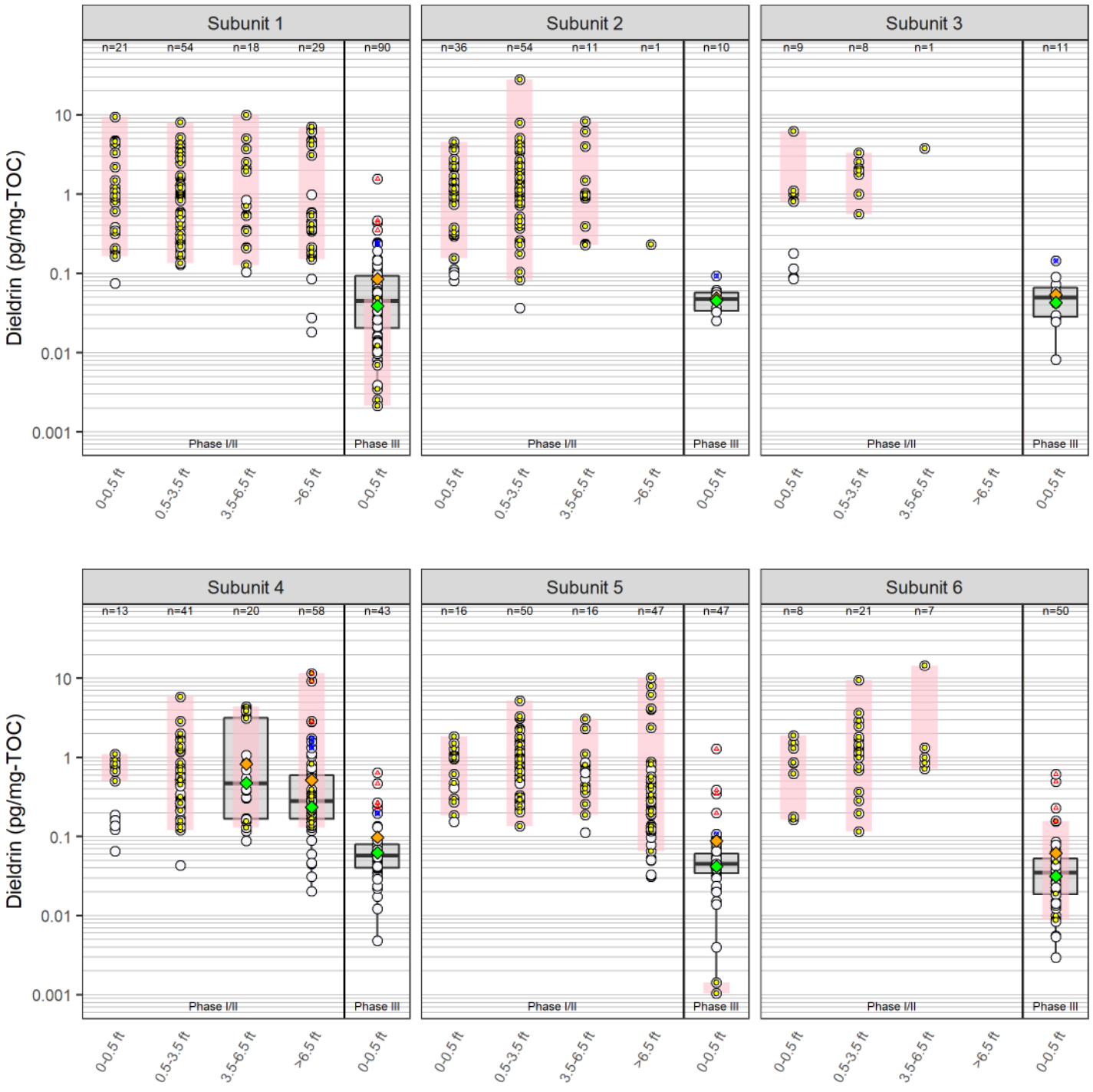
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - CIS-NONACHLOR-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-131



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

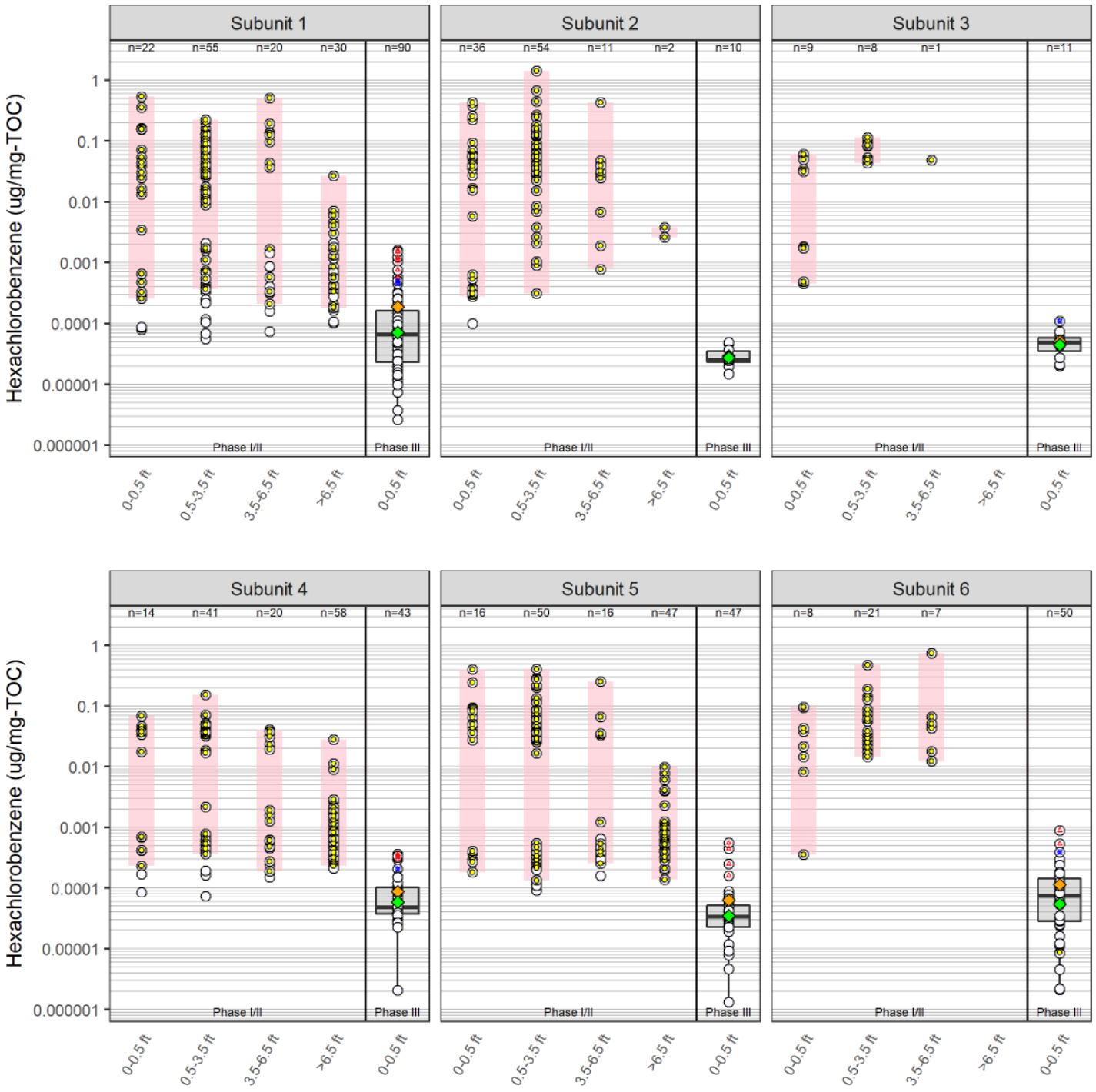
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

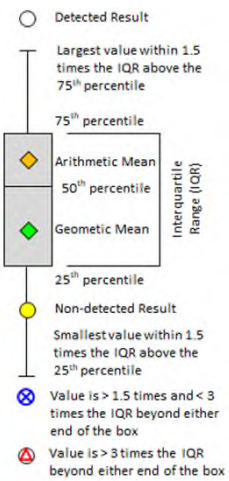
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - DIELDRIN-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-132





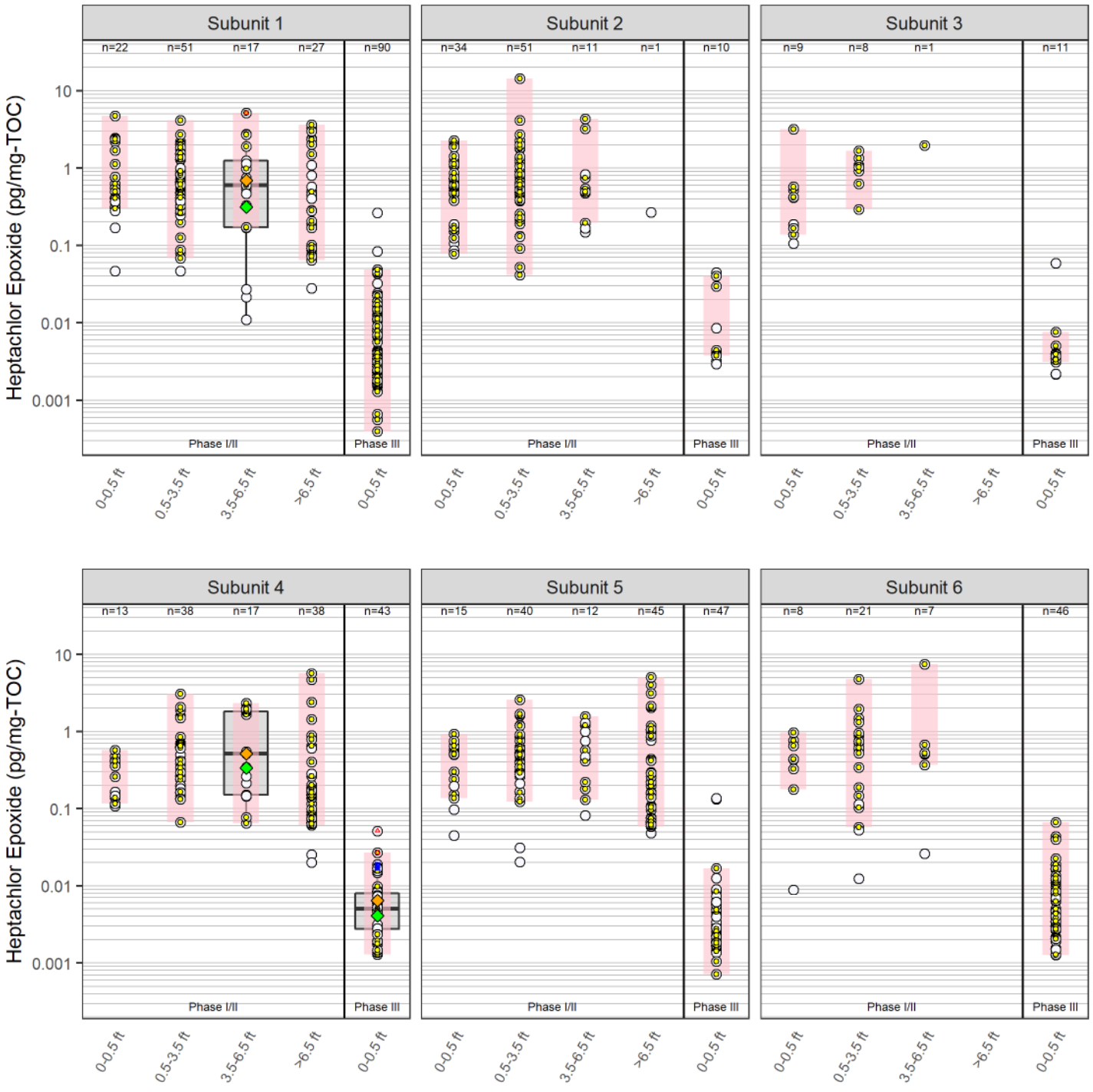
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Hexachlorobenzene was analyzed as a semi-volatile organic compound in Phase I/II and as a pesticide in Phase III. All Phase I results were non-detect.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - HEXACHLOROBENZENE-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-133



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

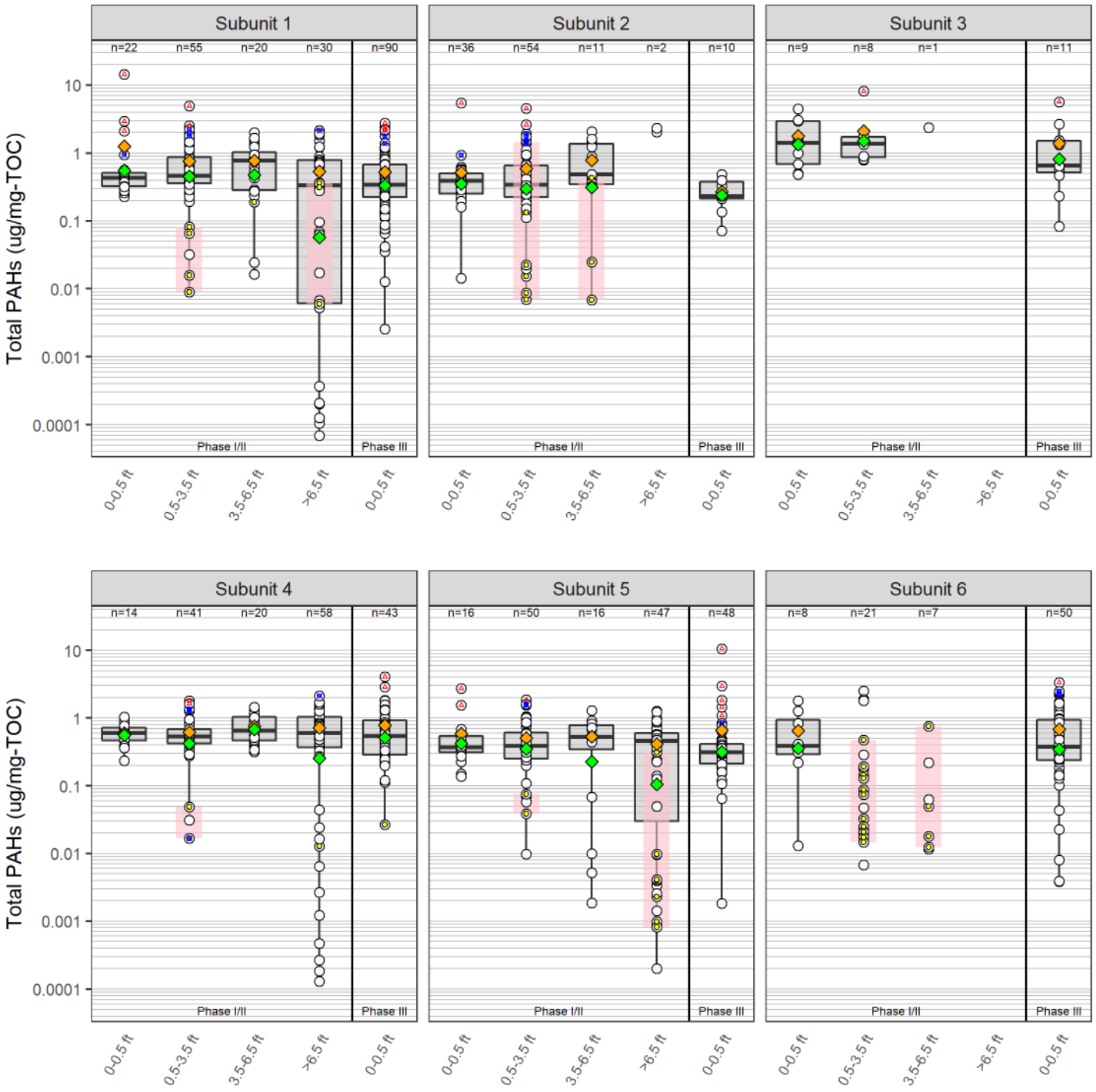
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

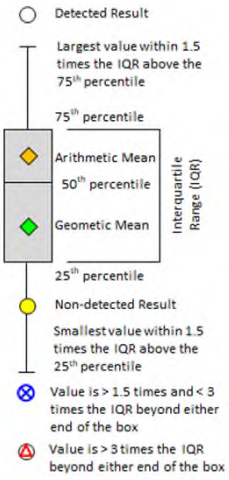
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - HEPTACHLOR EPOXIDE-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-134





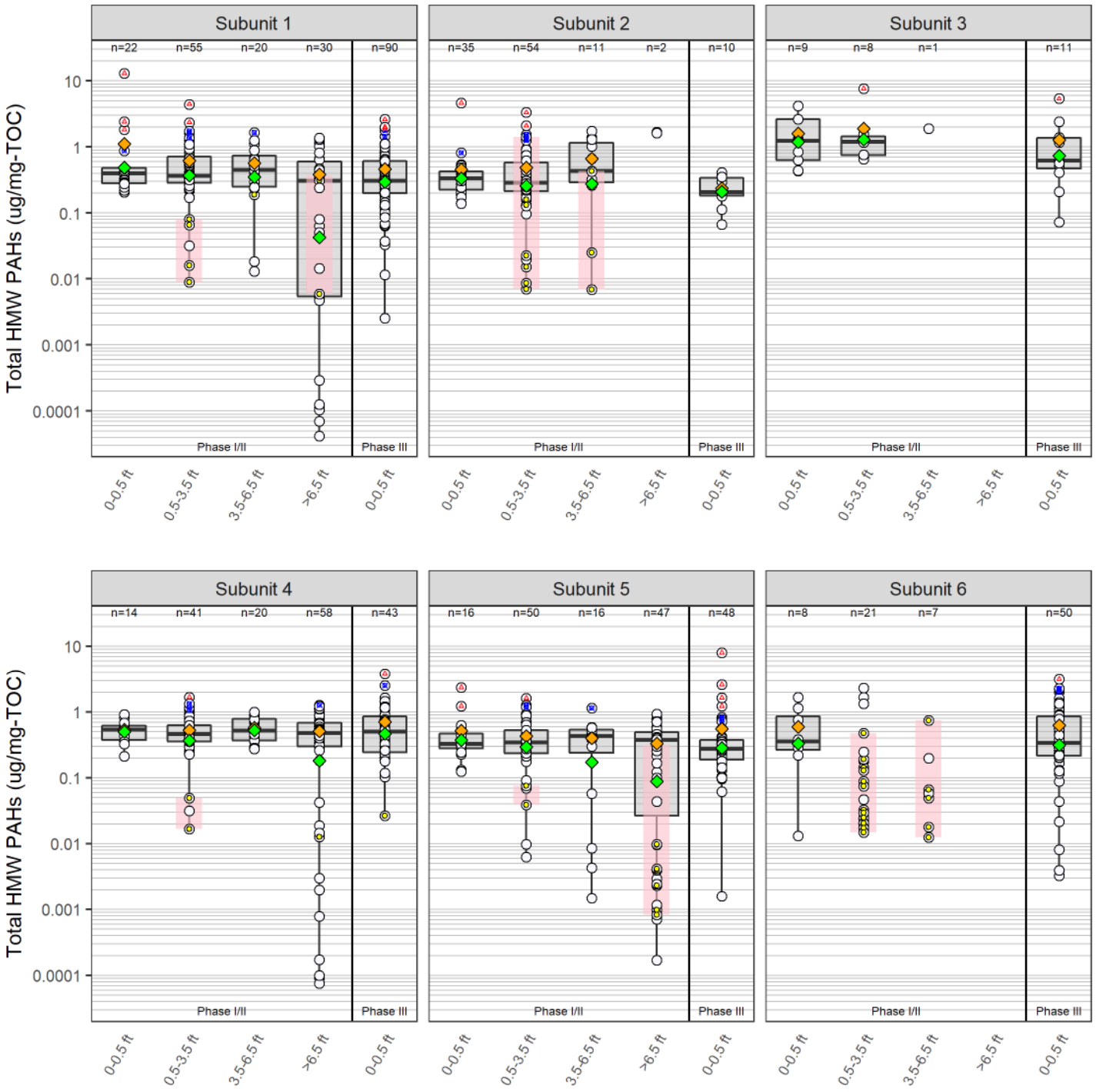
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

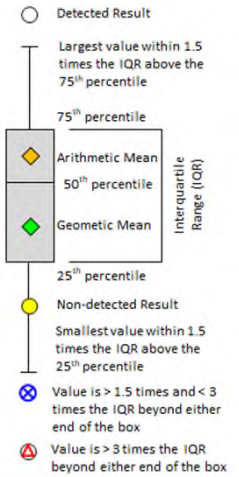
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-135





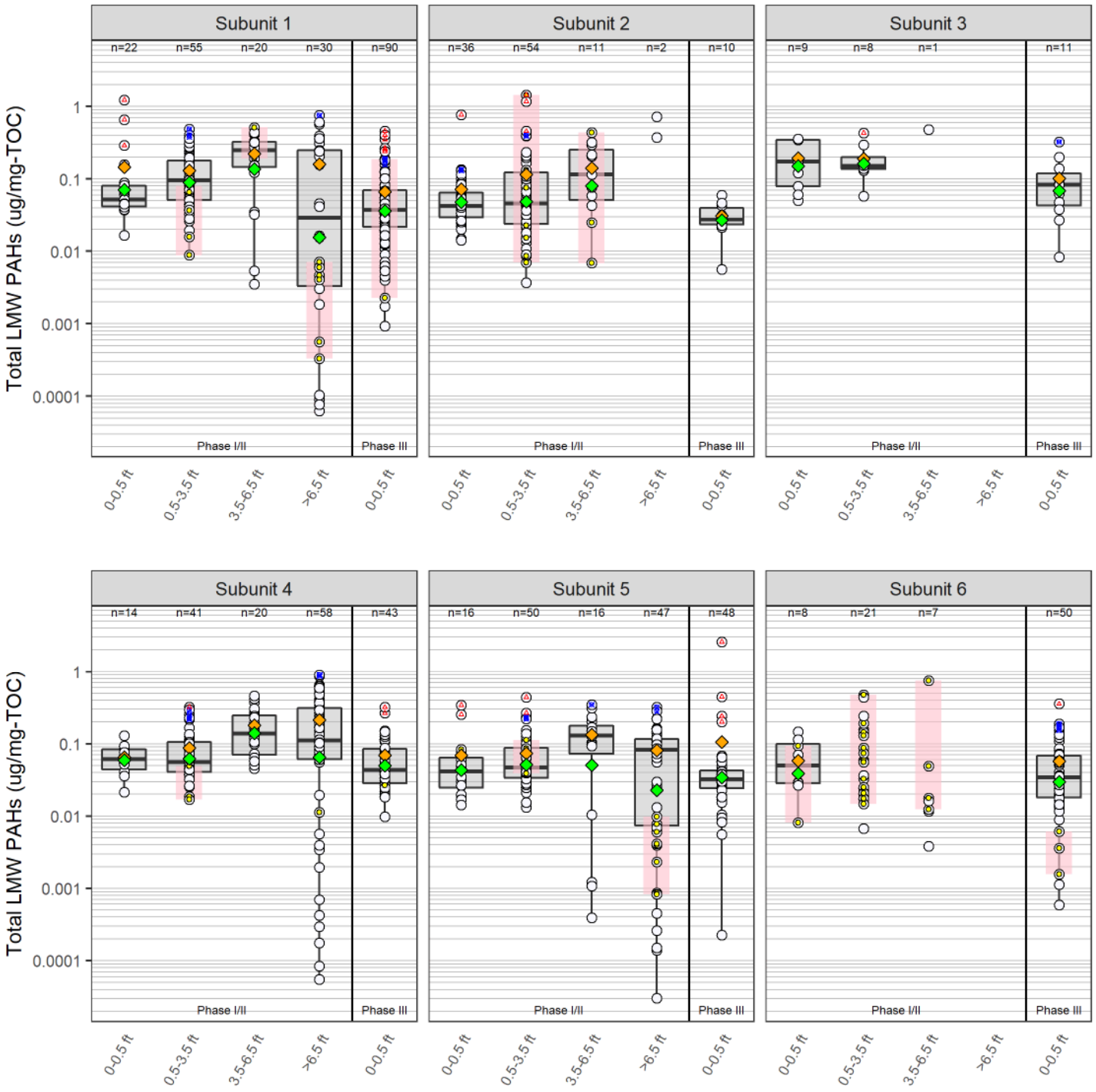
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

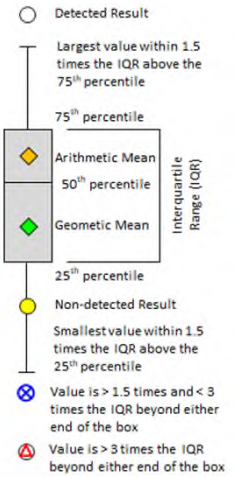
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL HMW PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-136





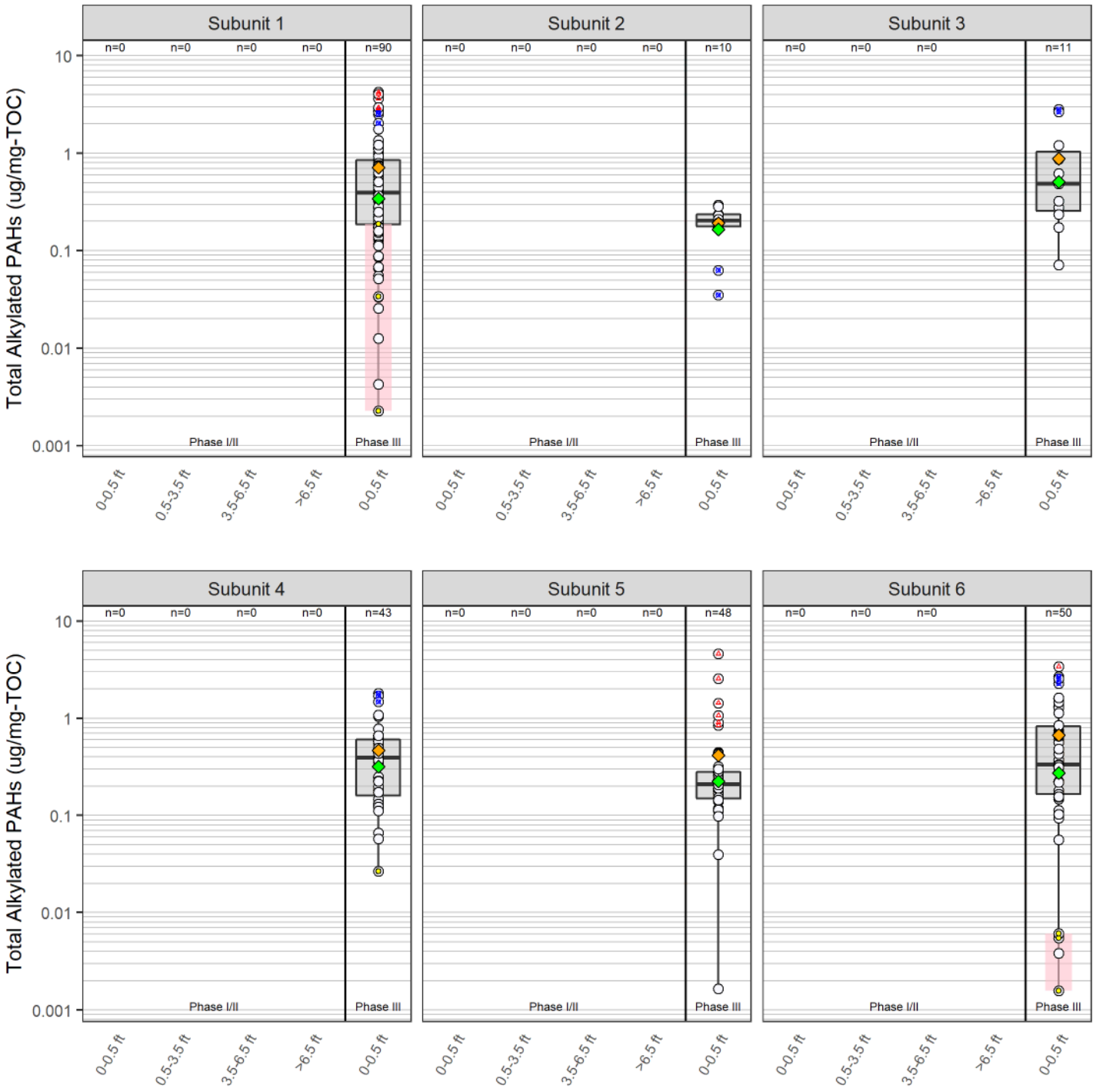
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

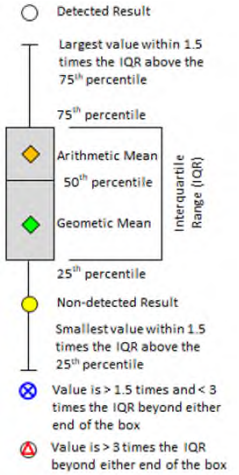
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL LMW PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-137





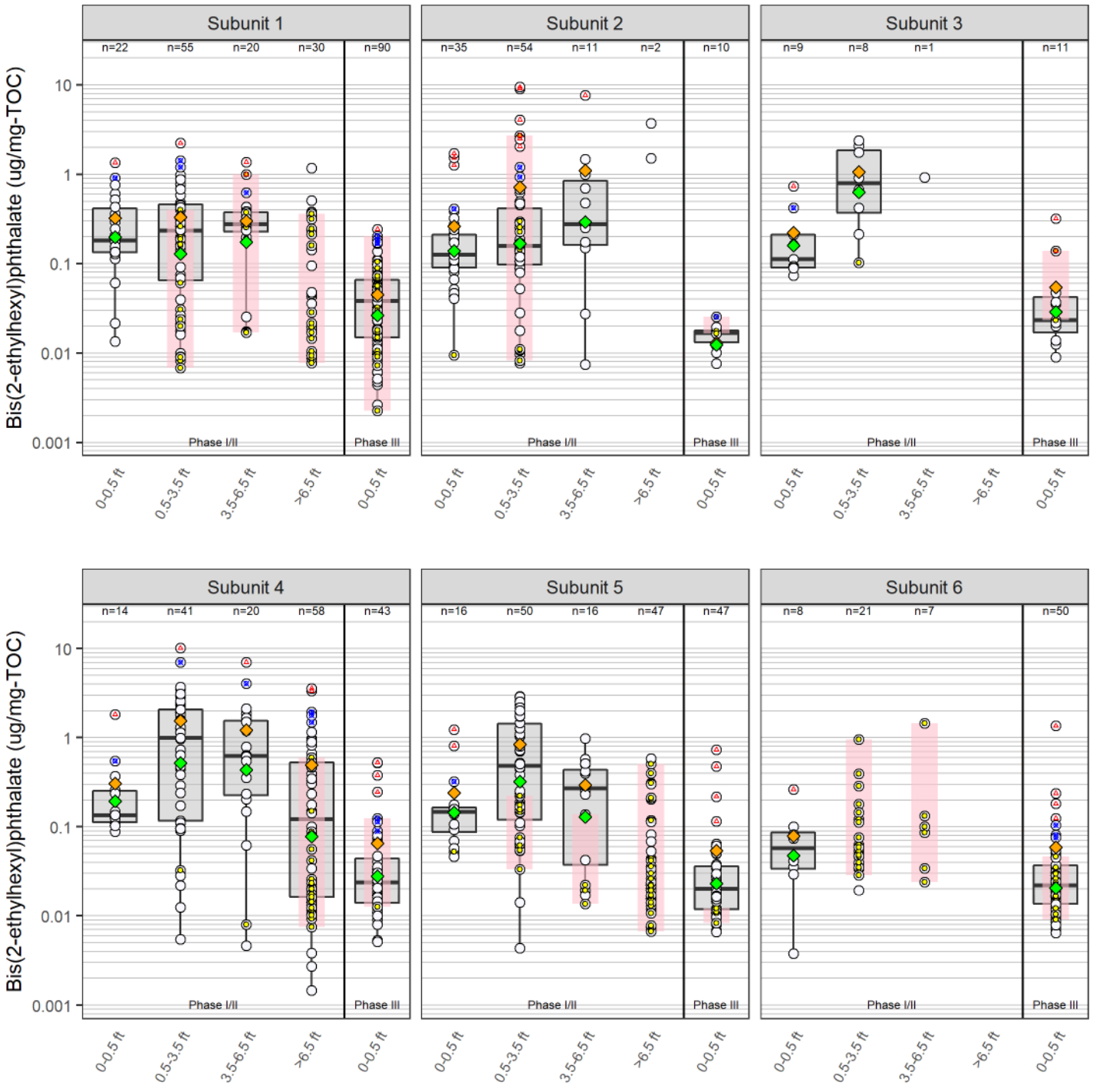
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Alkylated PAHs were not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TOTAL ALKYLATED PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-138



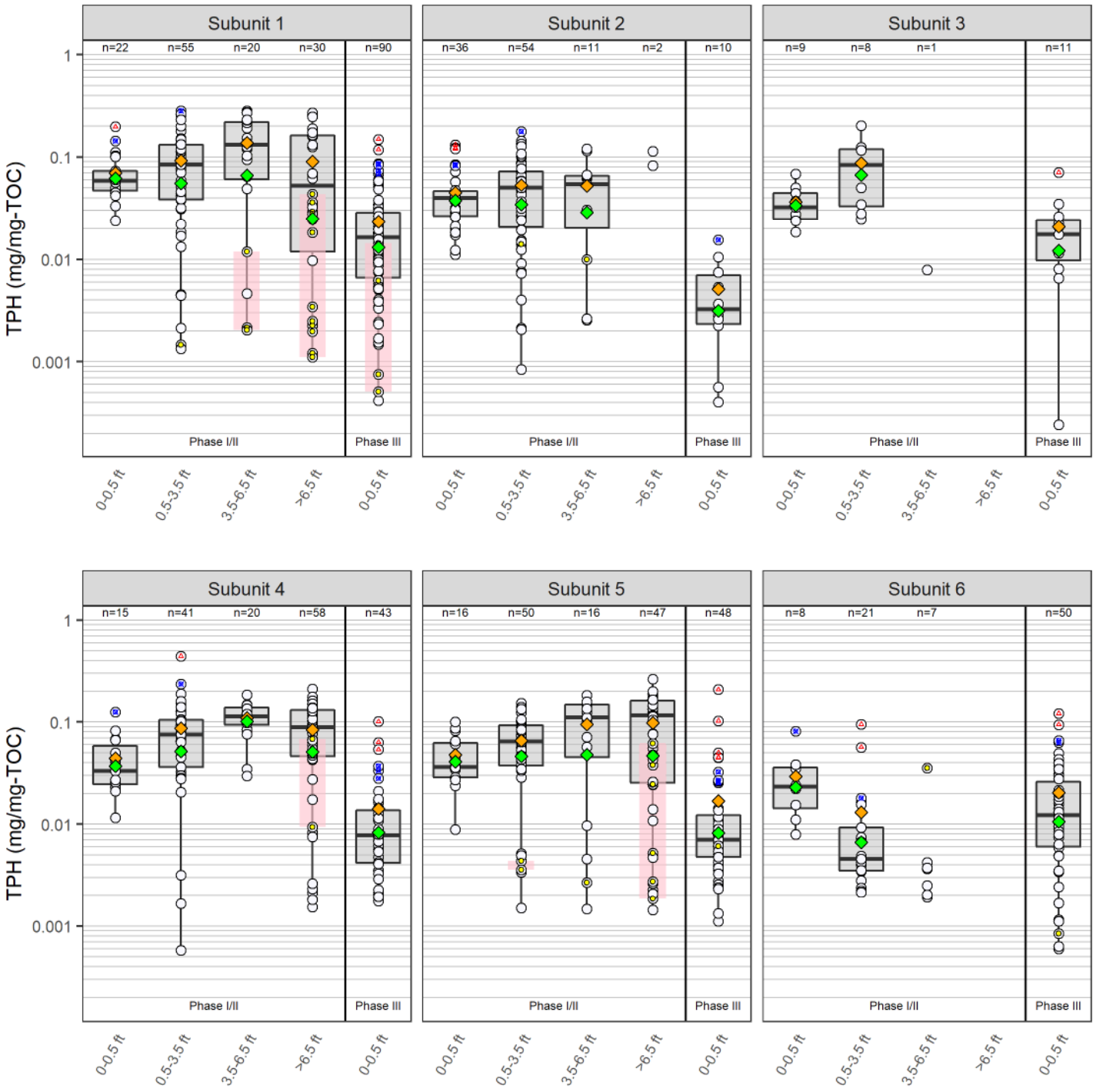
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

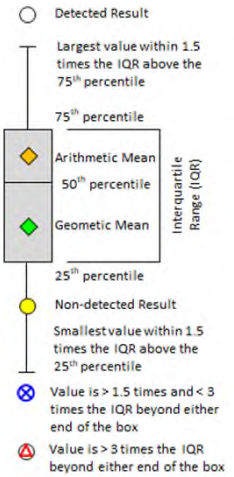
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - BIS(2-ETHYLHEXYL)PHTHALATE-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-139





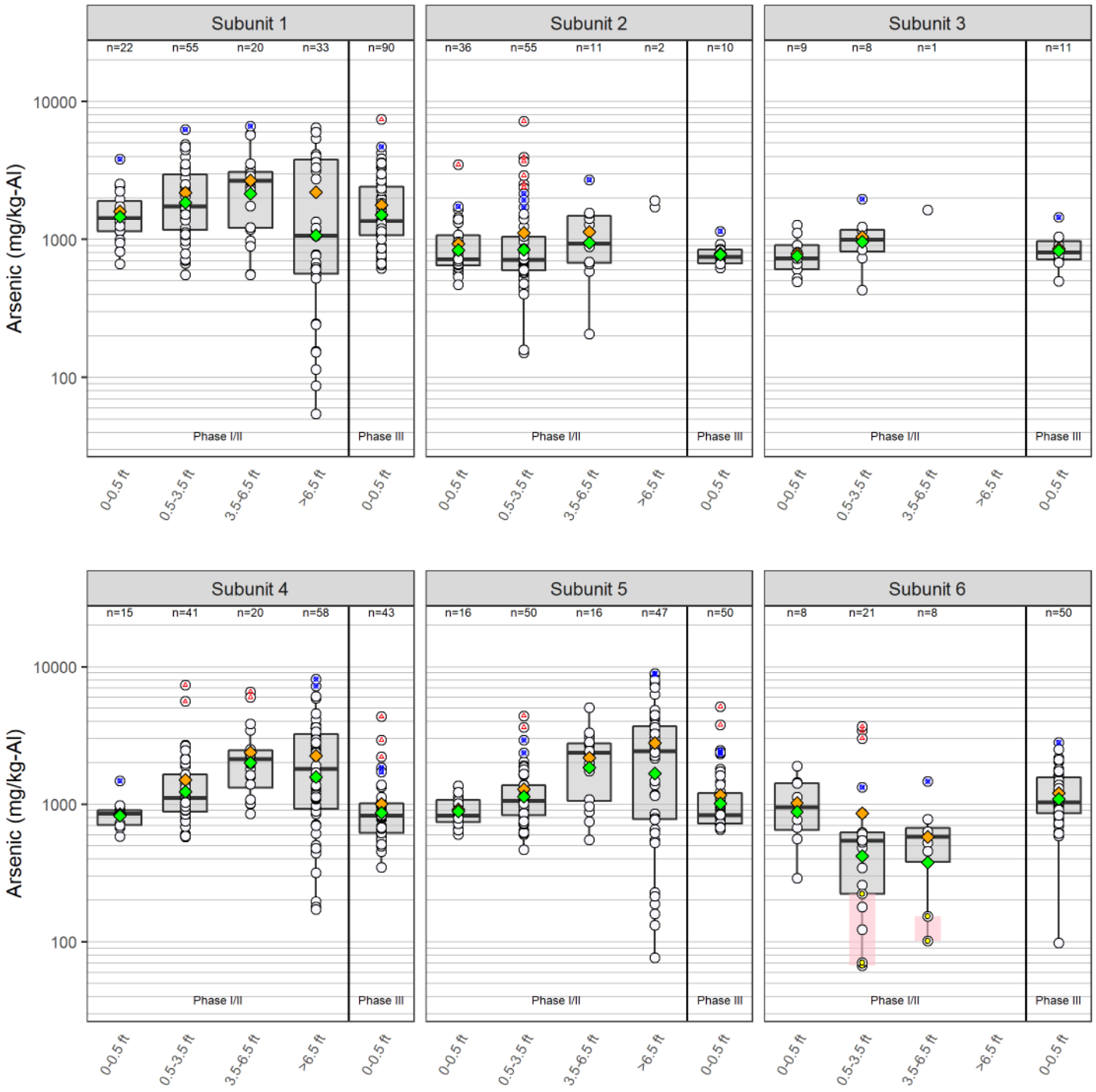
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.
The Phase I/II TPH data represent total extractable petroleum hydrocarbons (TEPH) whereas Phase III TPH data represent C9-C40 hydrocarbons.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - TPH-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-140



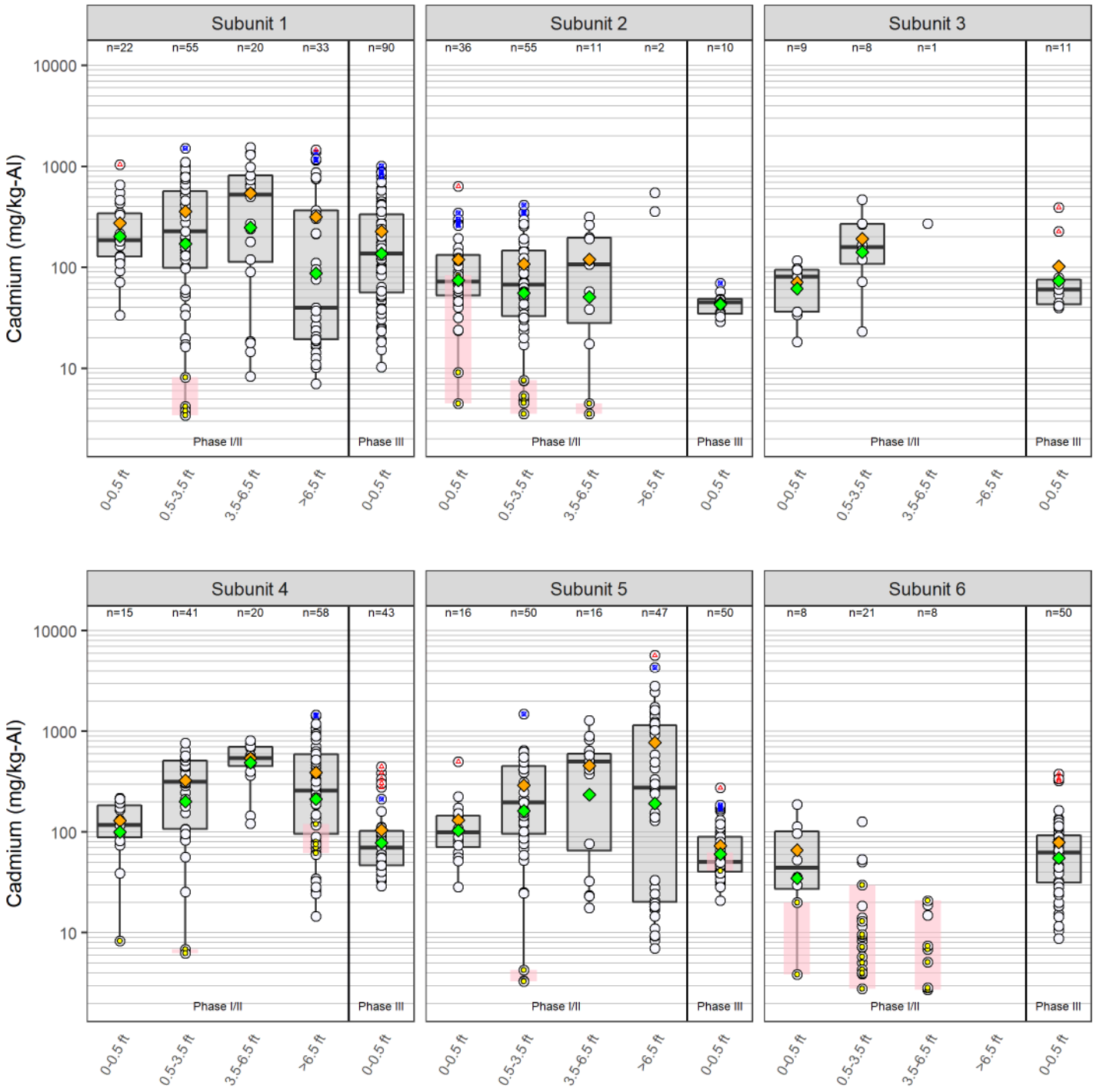
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

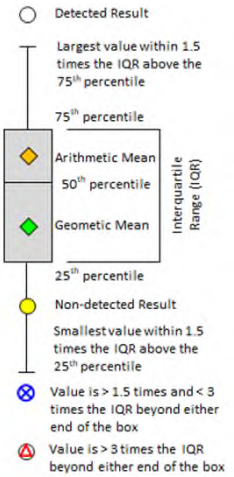
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - ARSENIC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-141





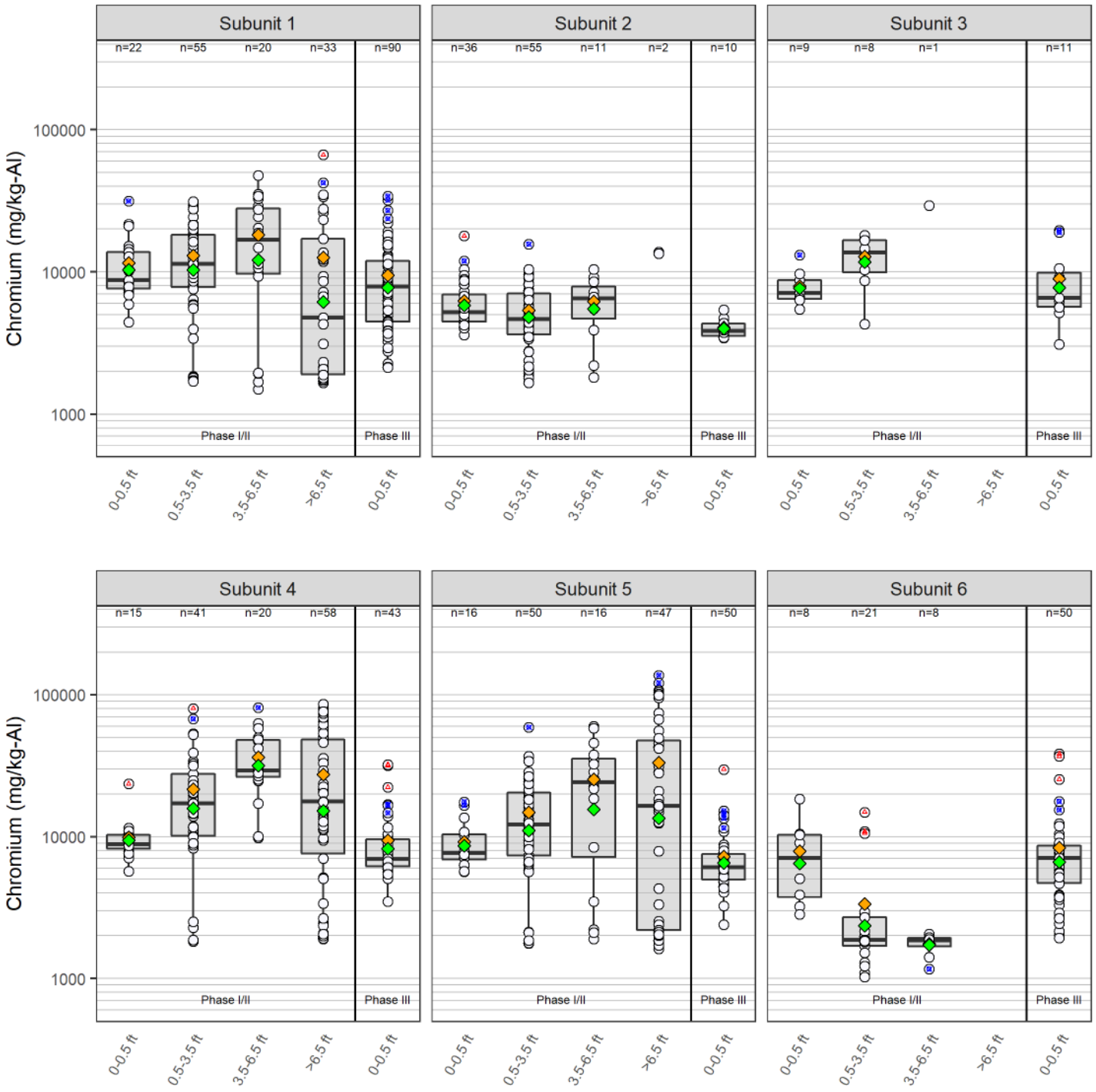
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

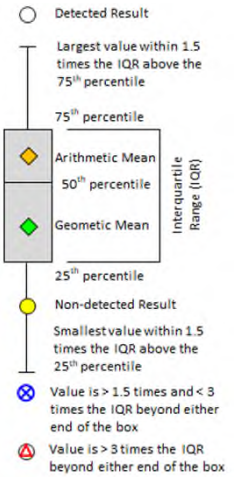
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - CADMIUM-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-142





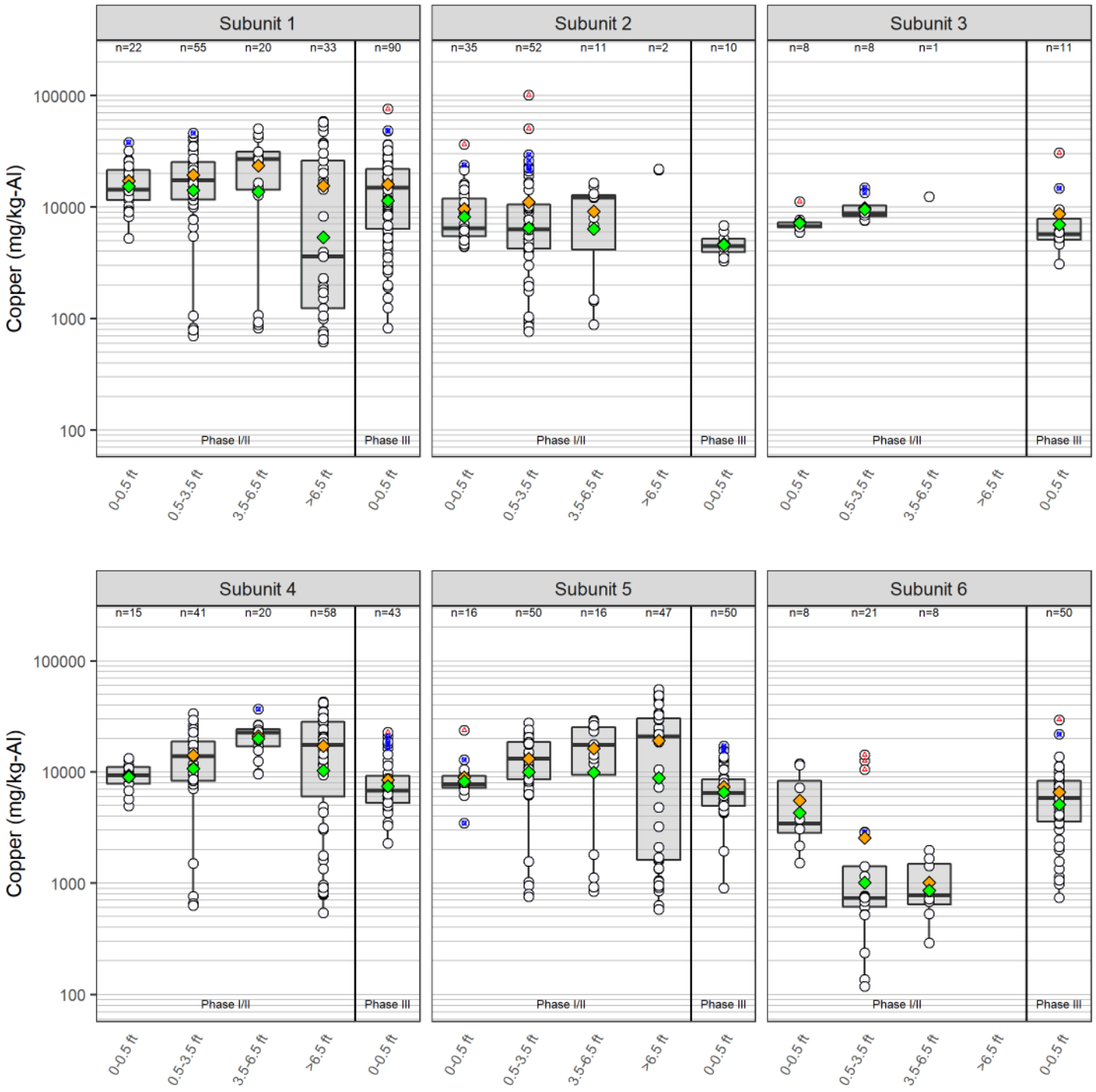
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

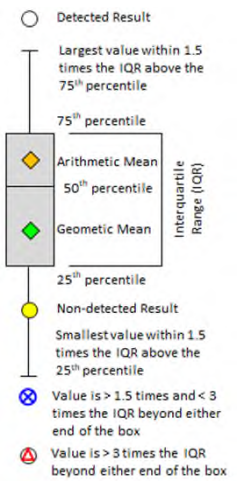
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - CHROMIUM-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-143





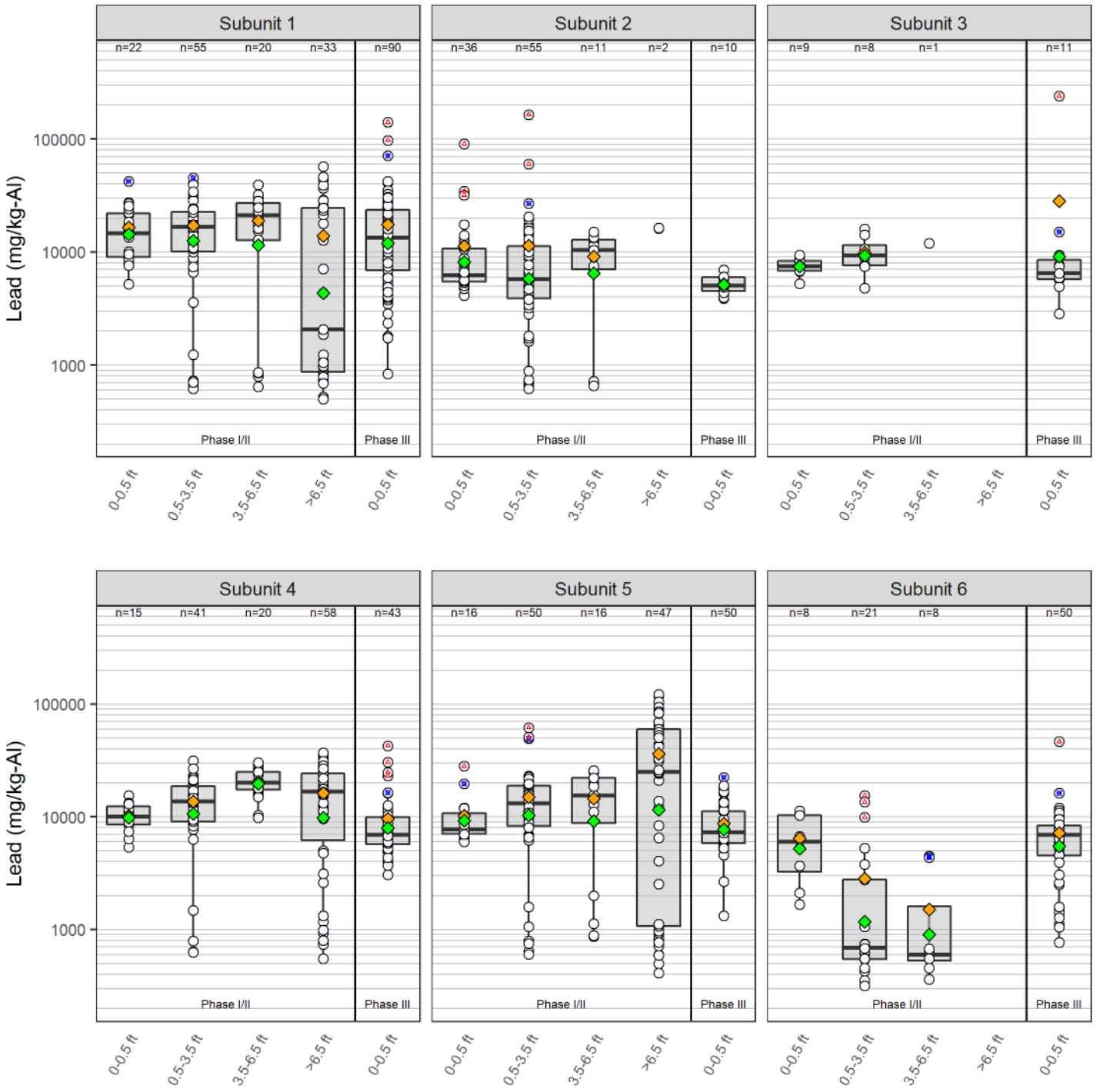
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

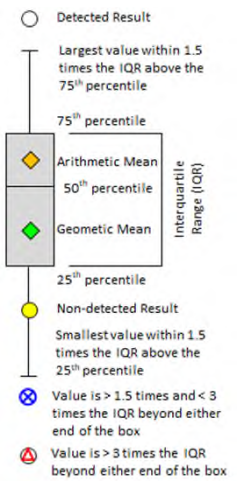
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - COPPER-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-144





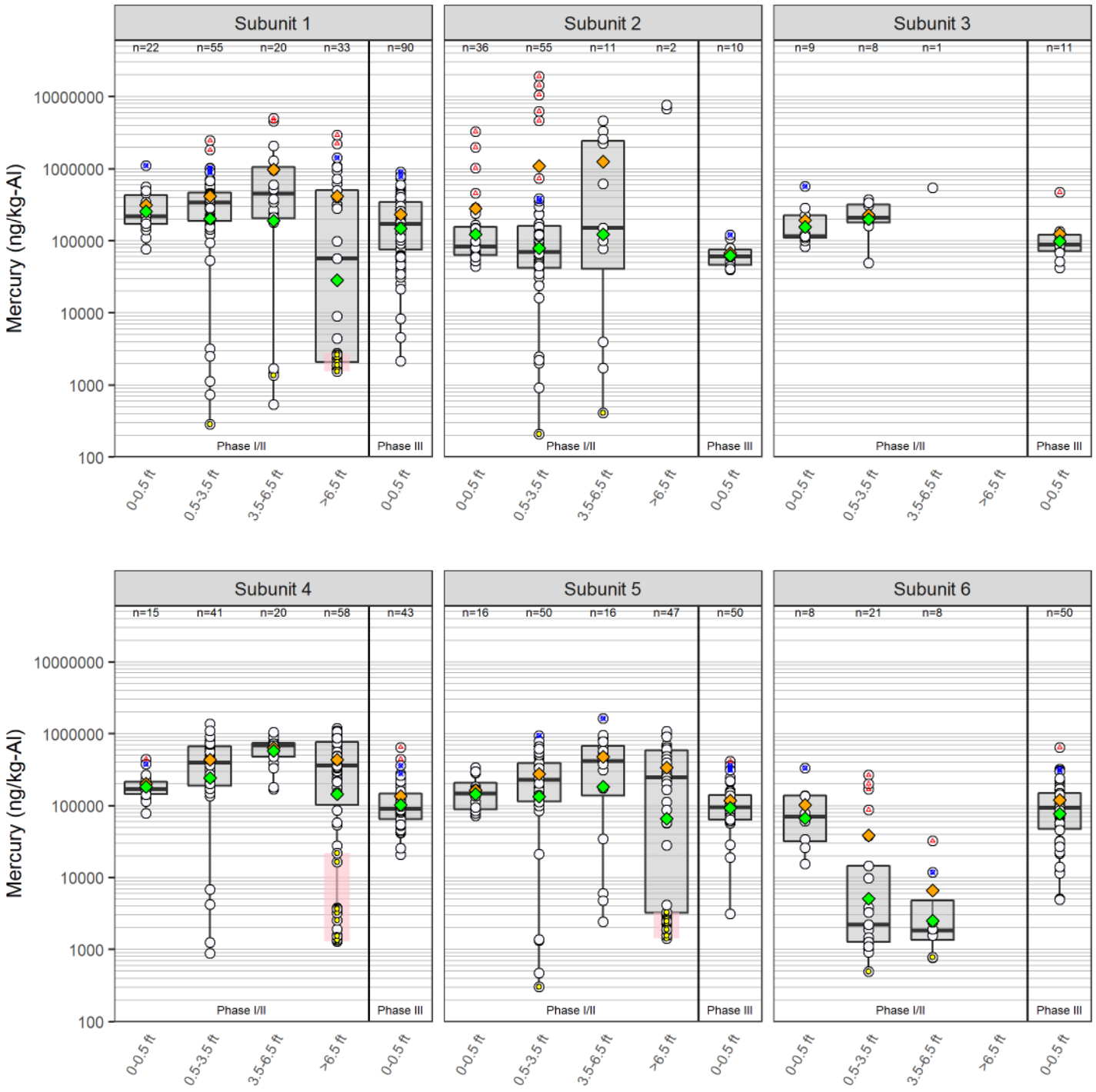
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - LEAD-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-145



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometric Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

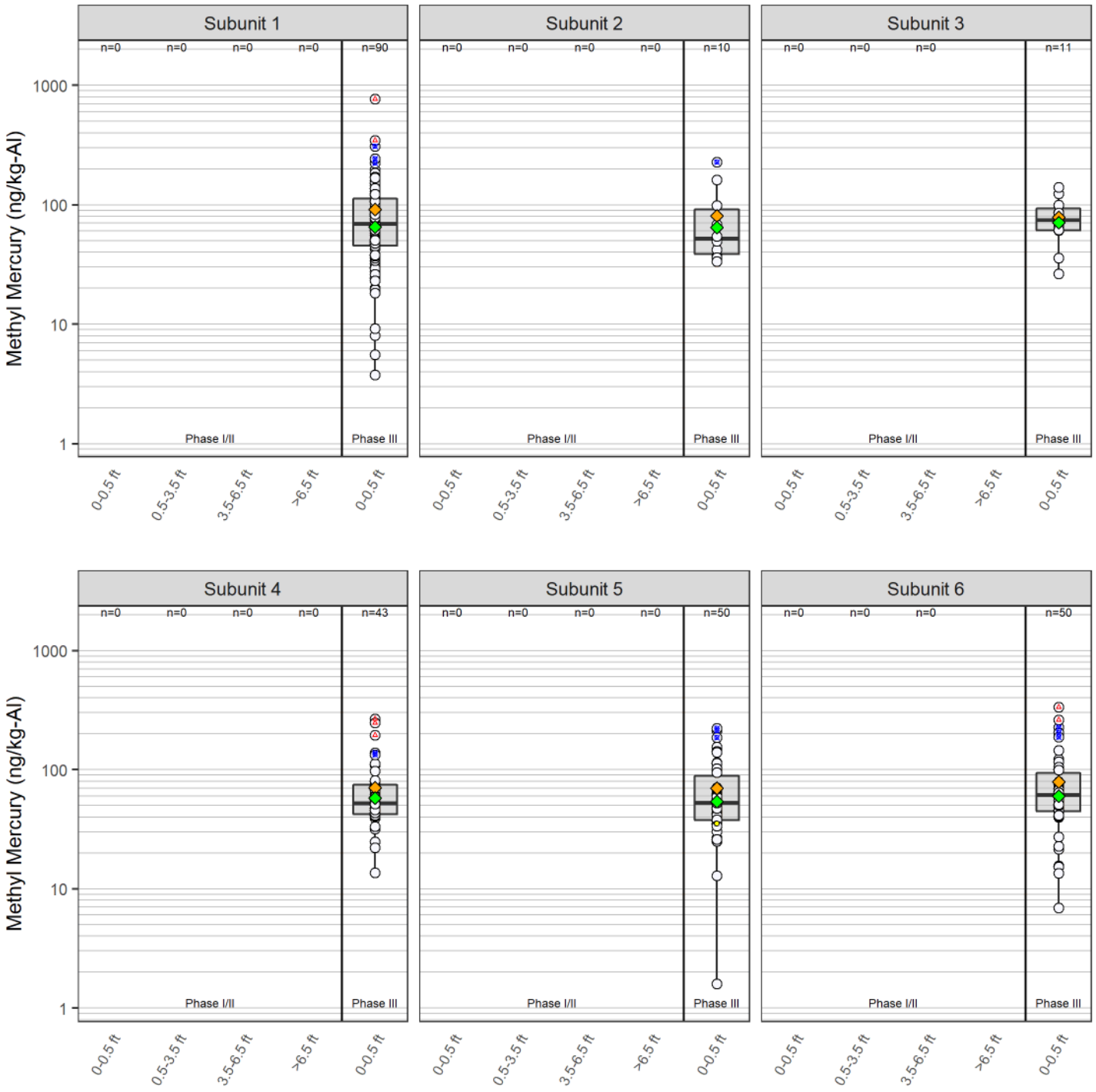
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

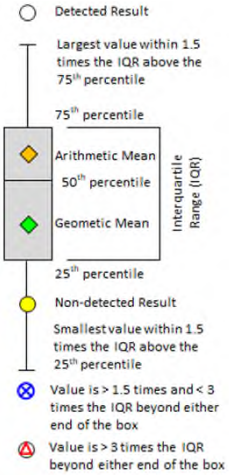
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - MERCURY-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-146





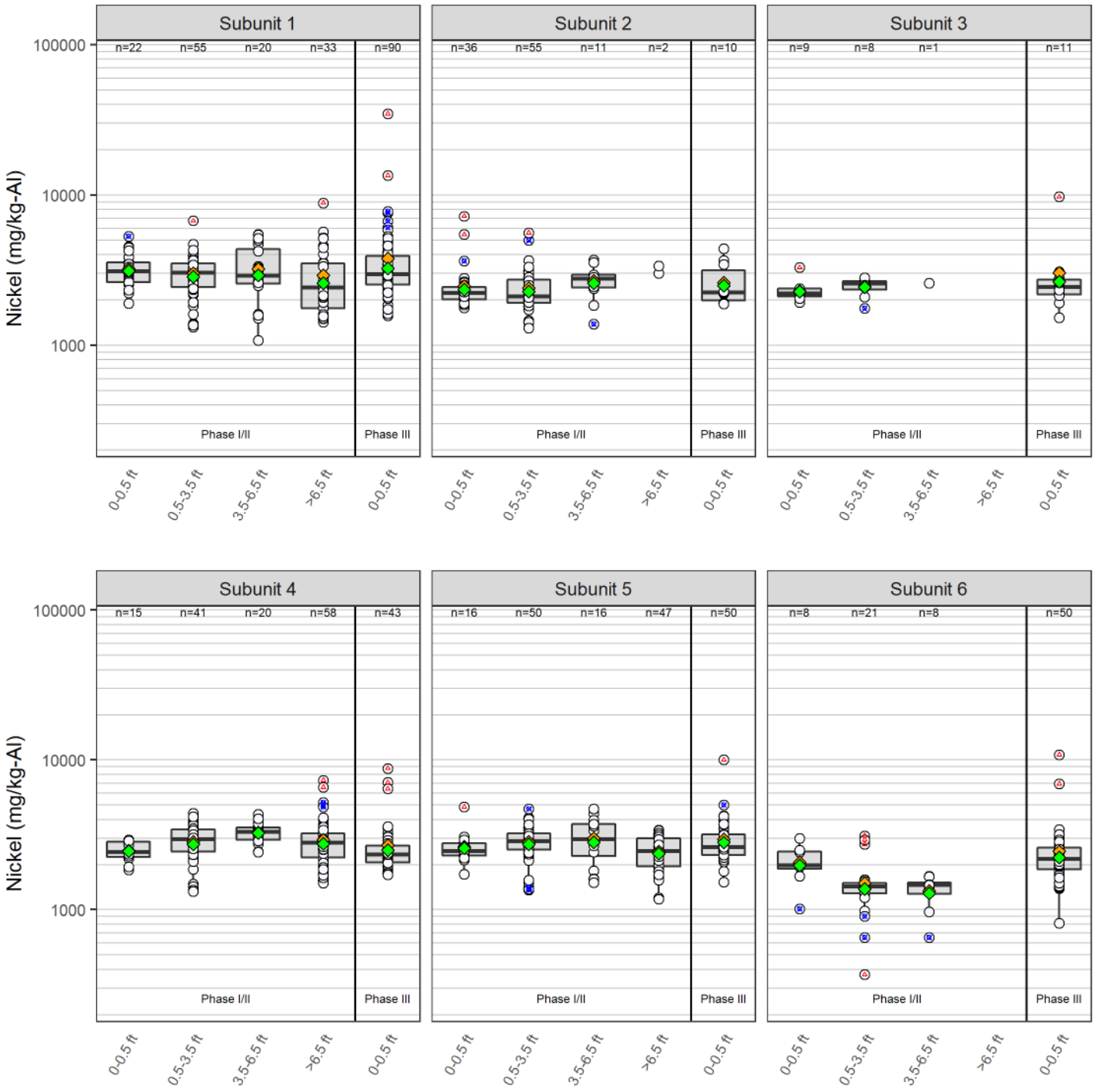
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Methyl mercury was not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

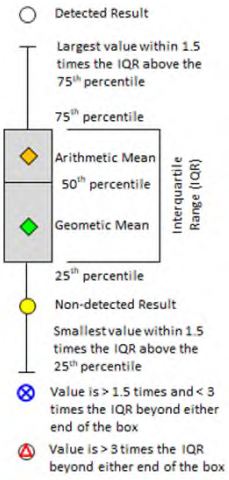
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - METHYL MERCURY-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-147





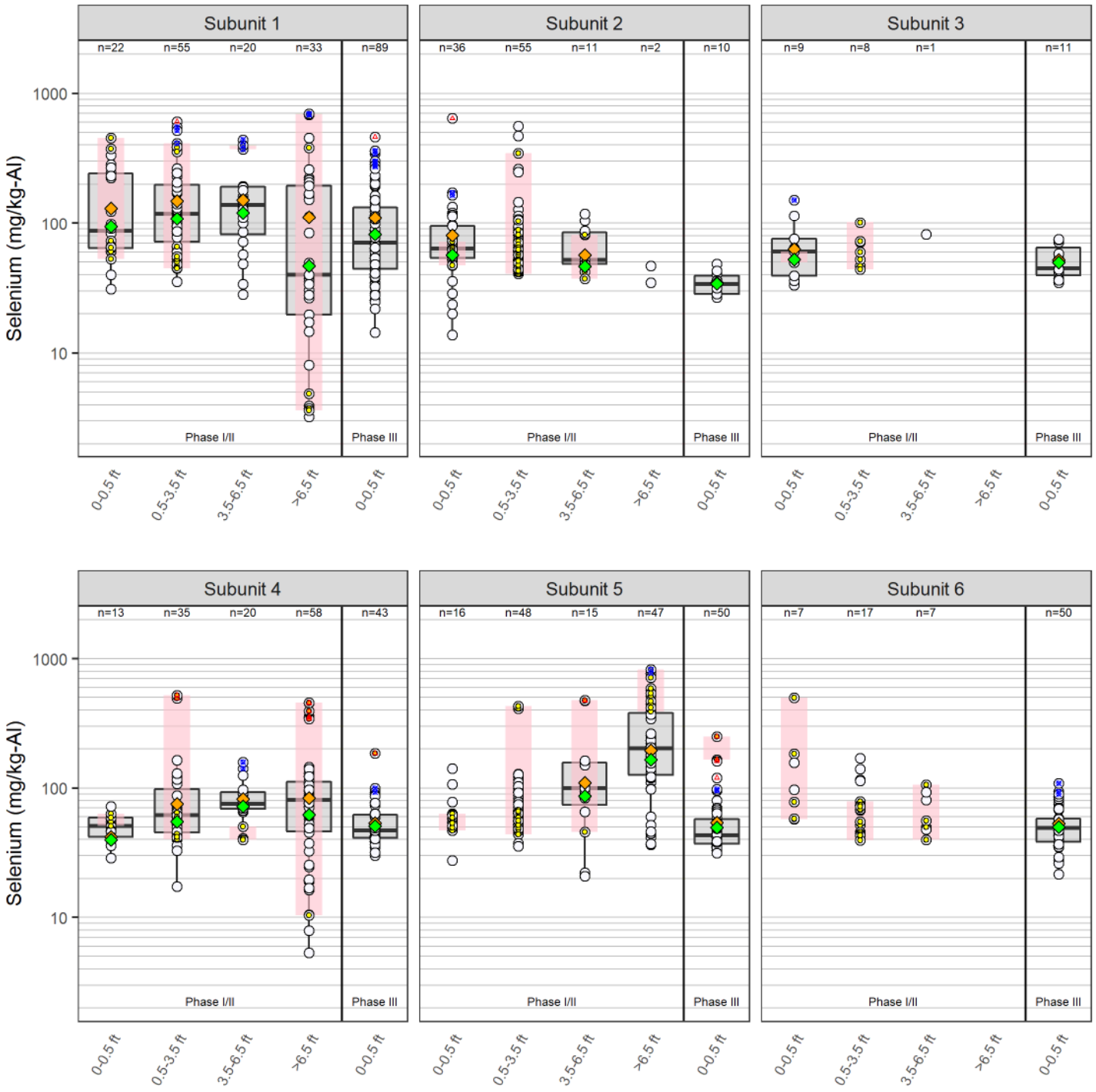
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - NICKEL-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-148



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

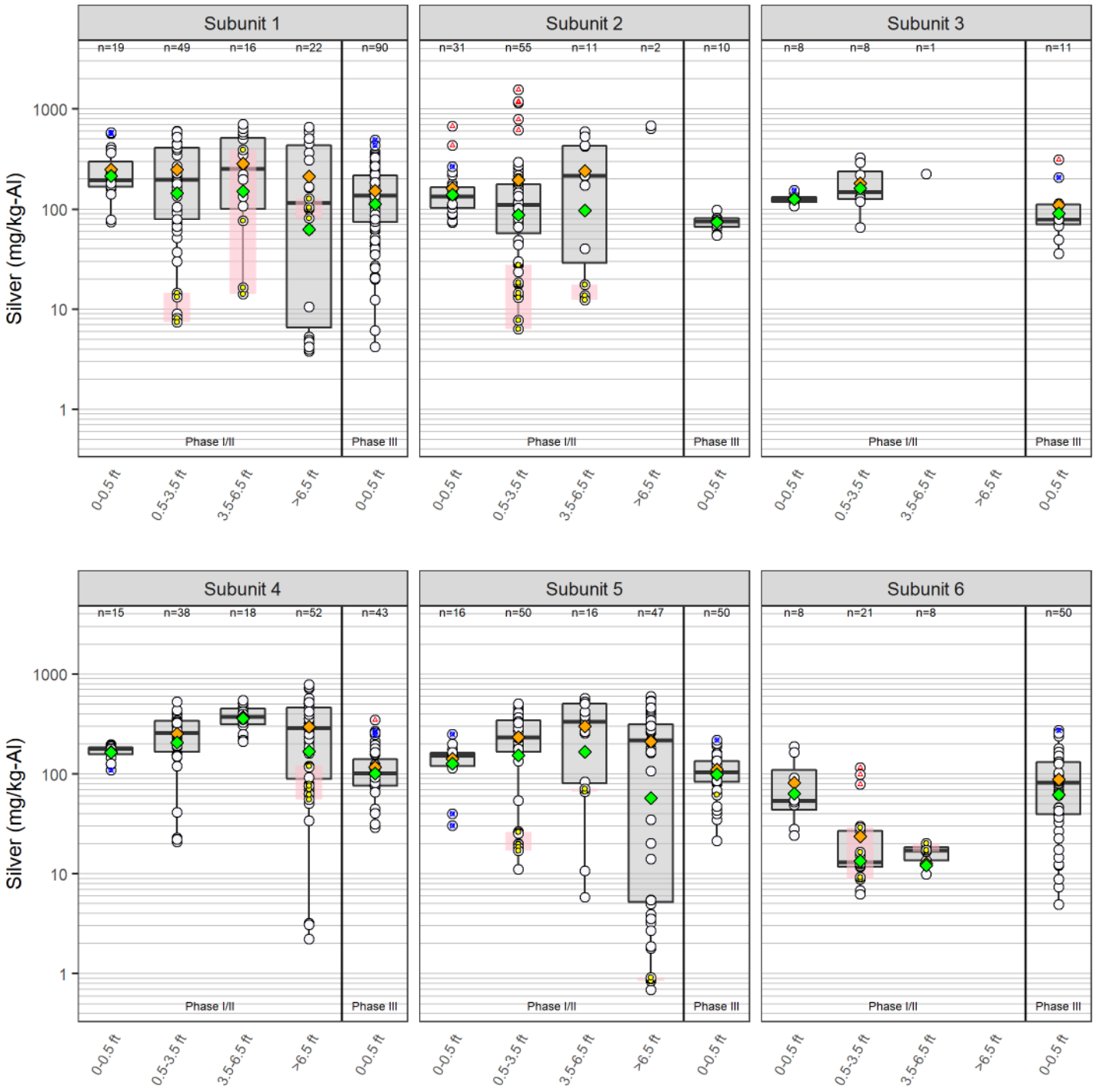
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - SELENIUM-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-149



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

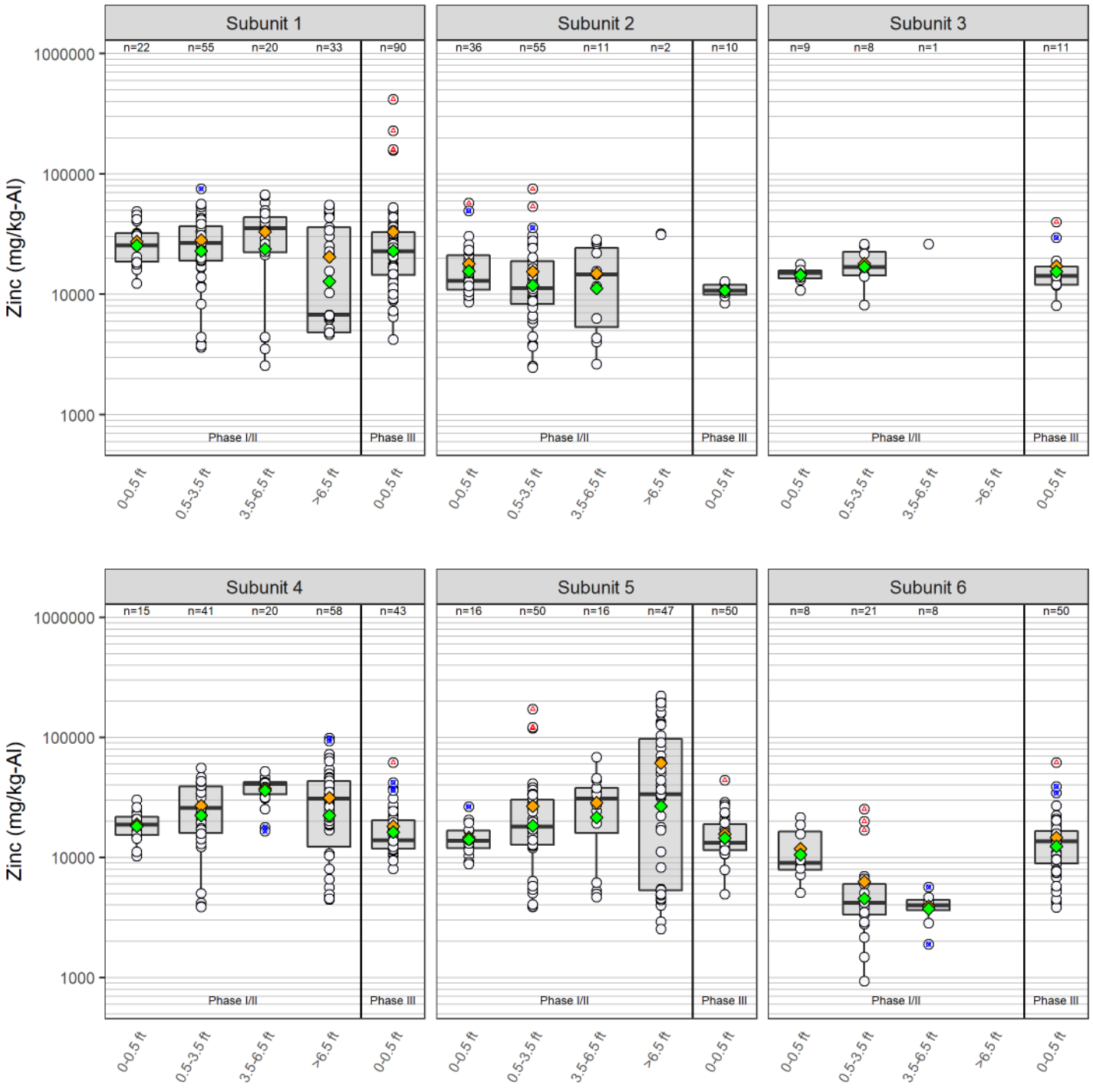
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

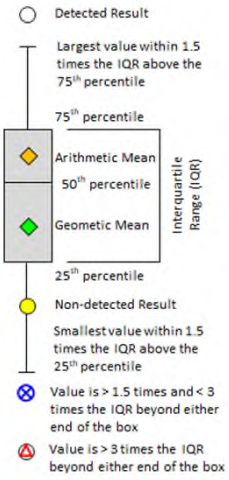
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - SILVER-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-150





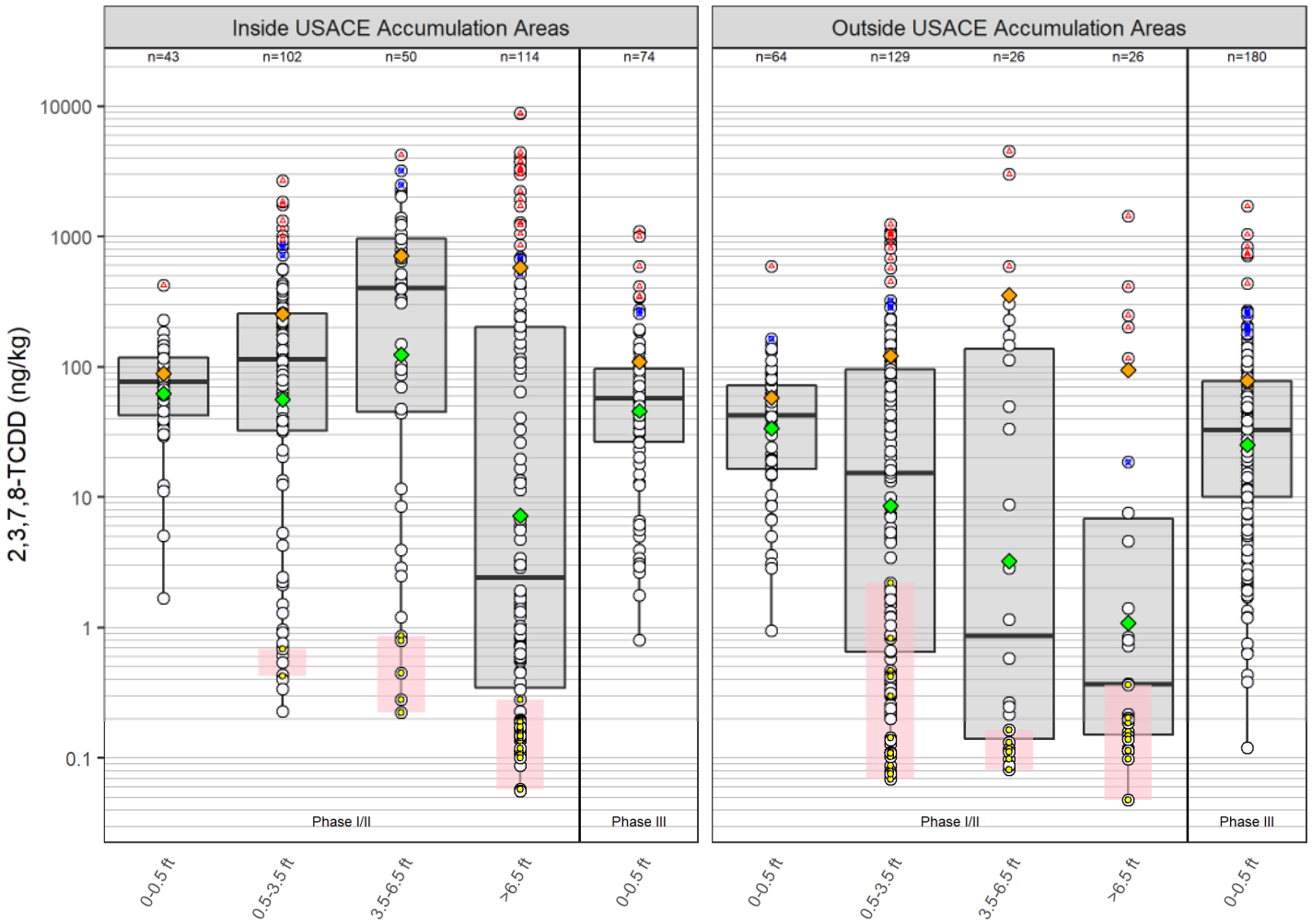
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
EPA subunits shown on Figure 2-8.

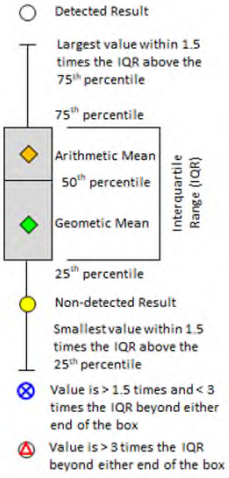
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT BY USEPA SUBUNIT - ZINC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-151





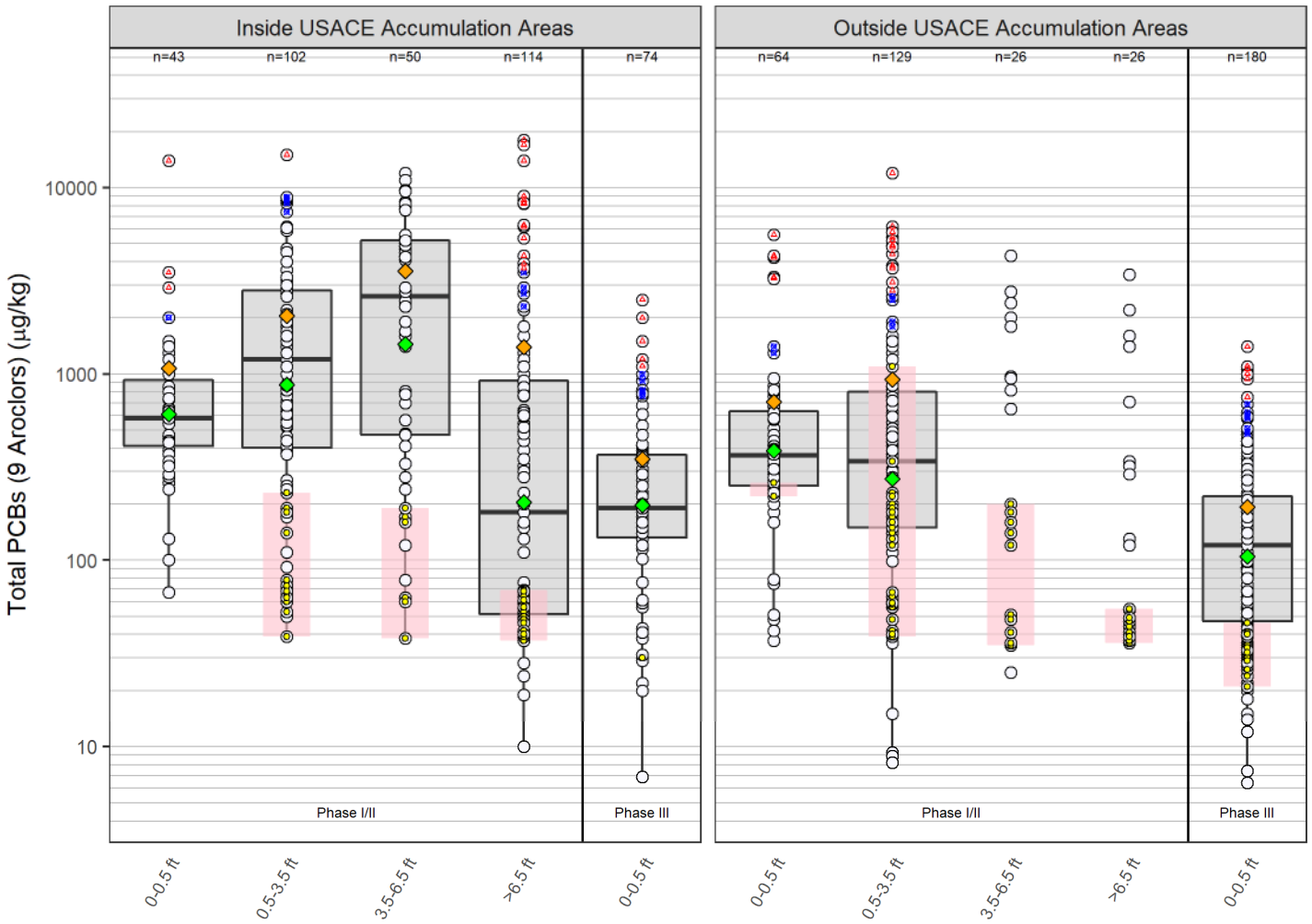
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

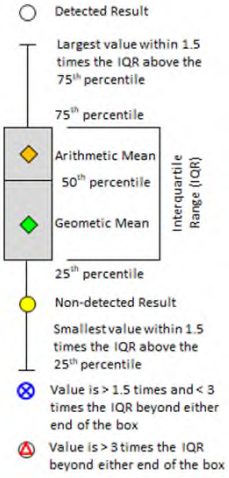
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - 2,3,7,8-TCDD

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-152





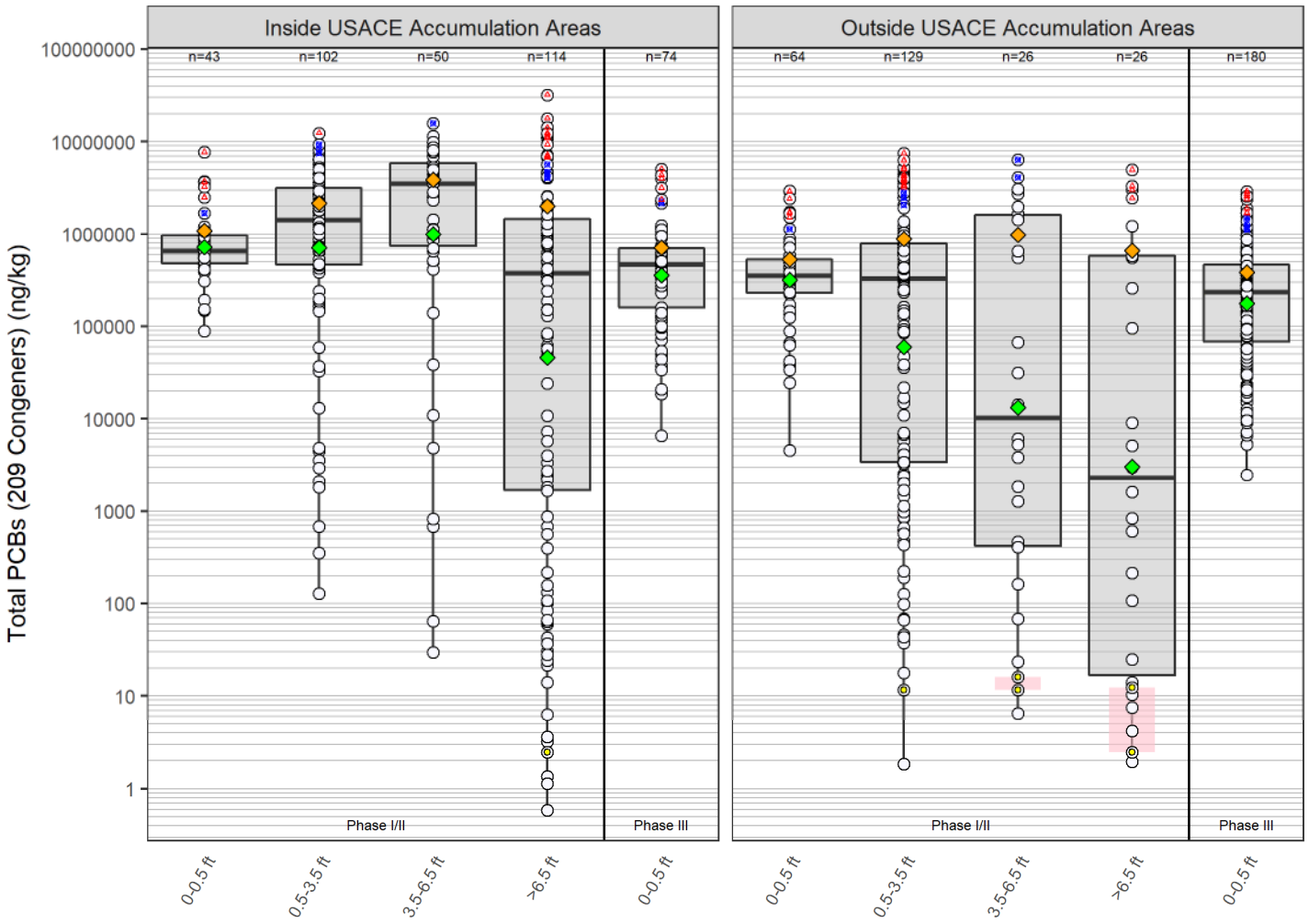
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

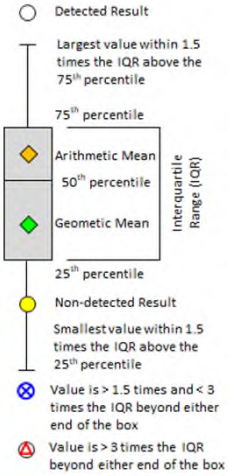
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL PCBS (9 AROCLORS)

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-153





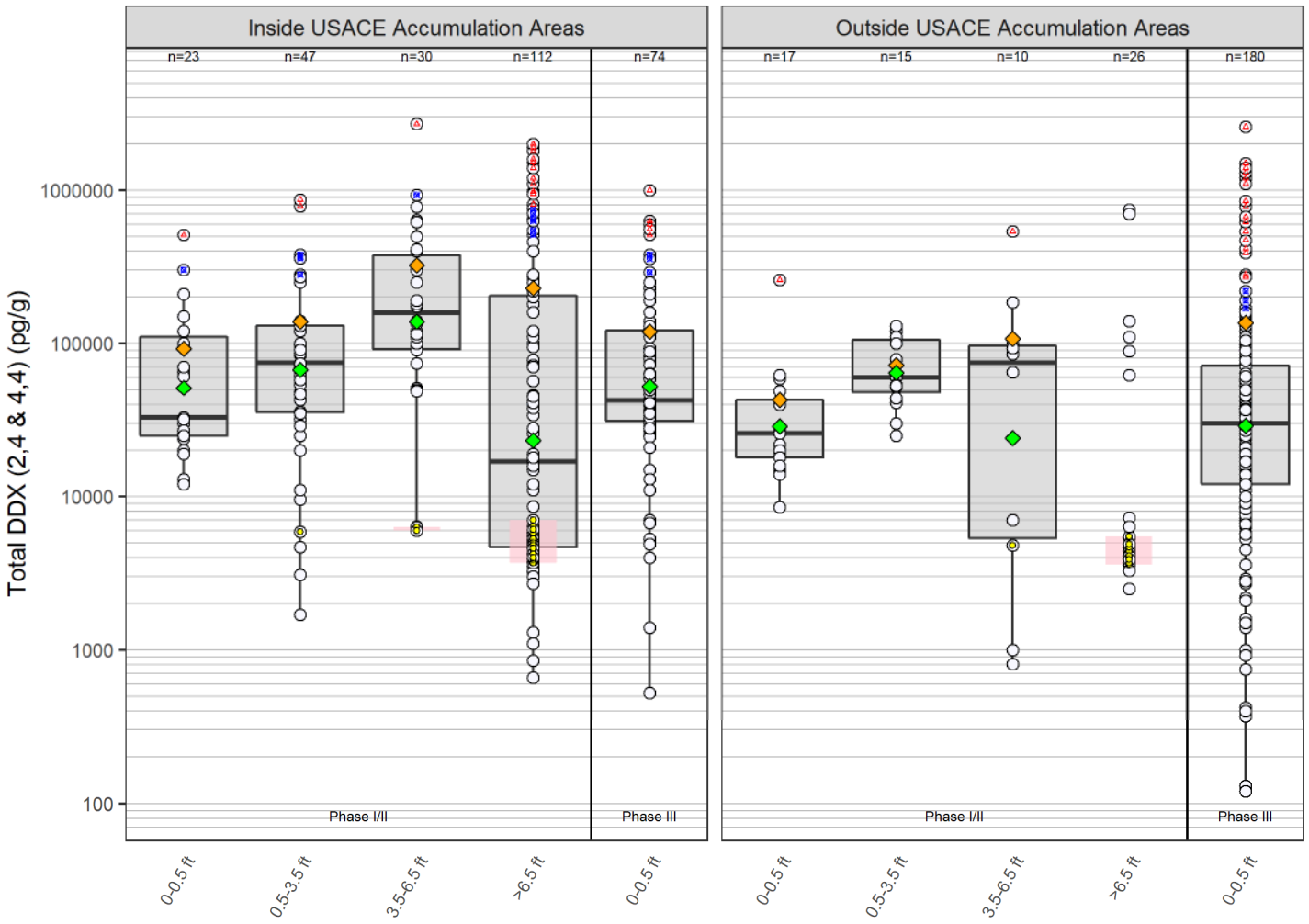
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

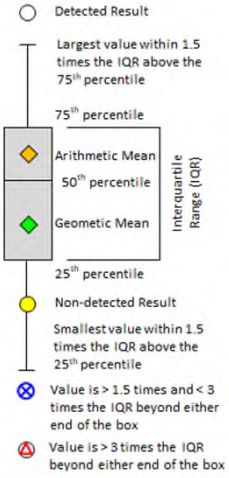
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL PCB (209 CONGENERS)

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-154





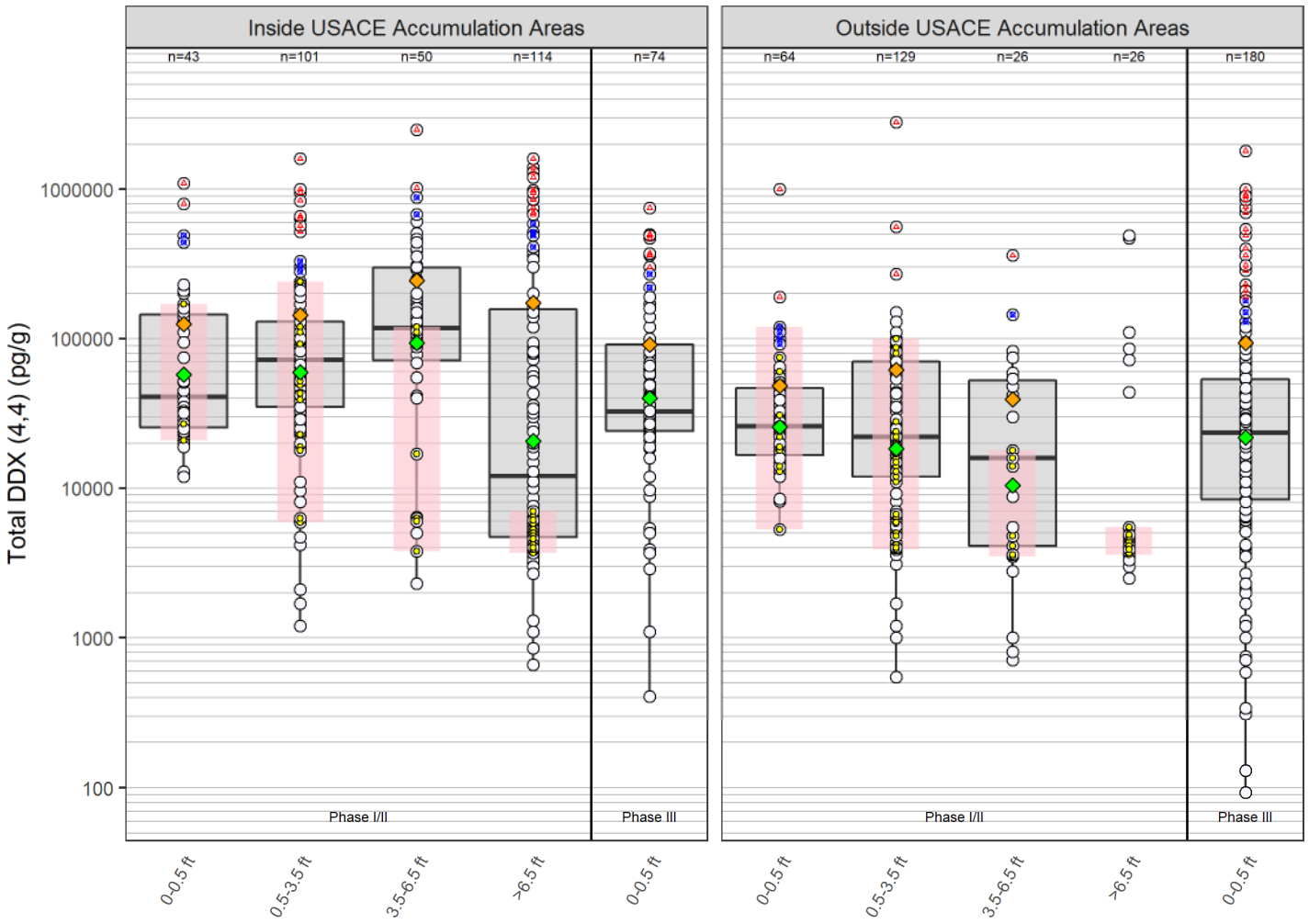
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

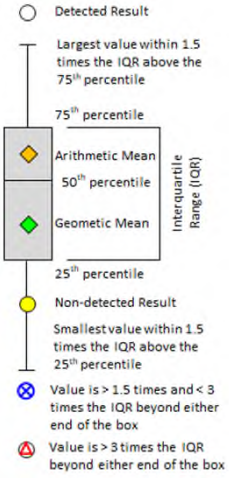
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL DDX (2,4 & 4,4)

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-155





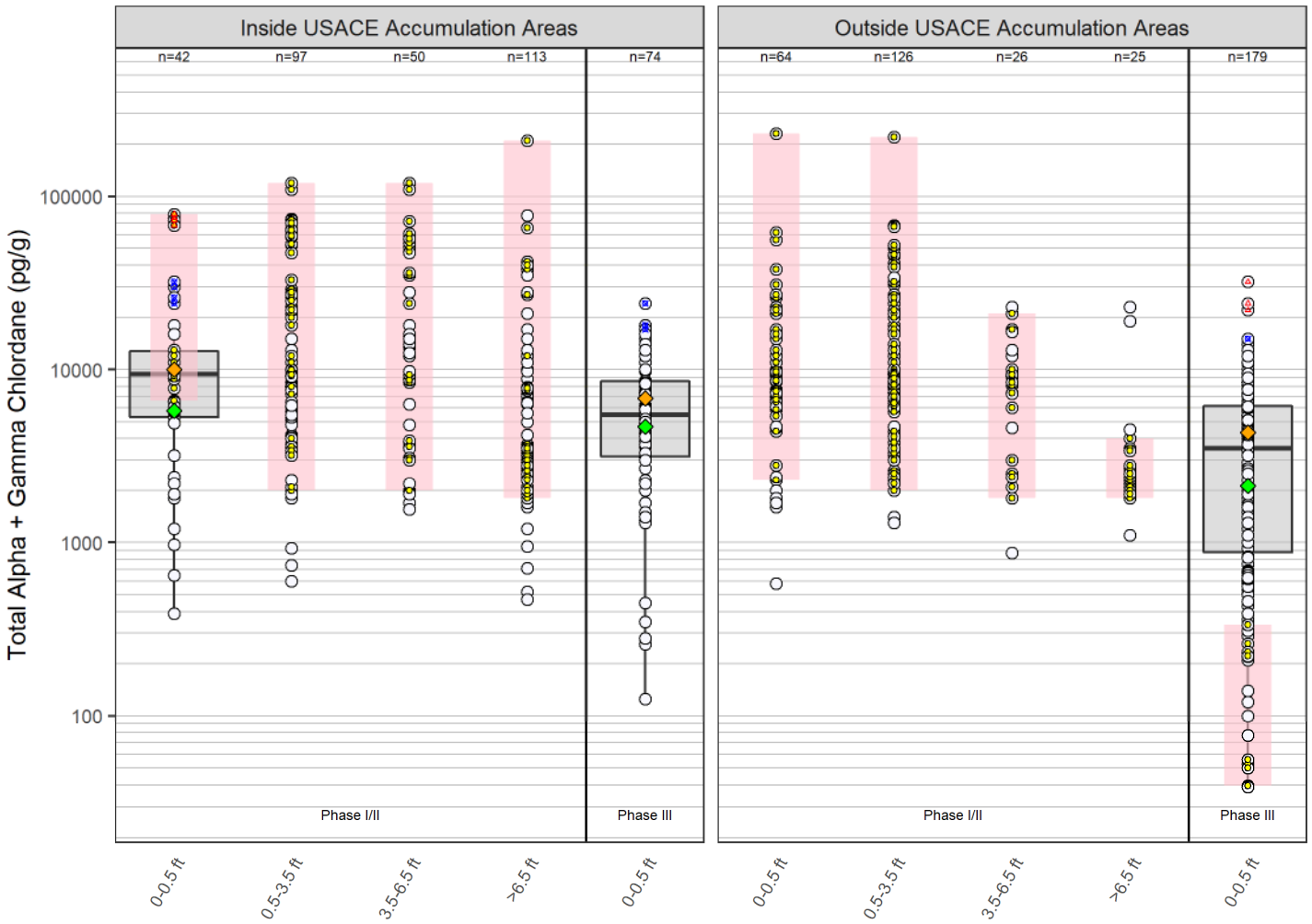
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

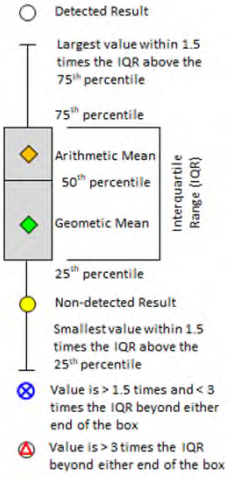
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL DDX (4,4)

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-156





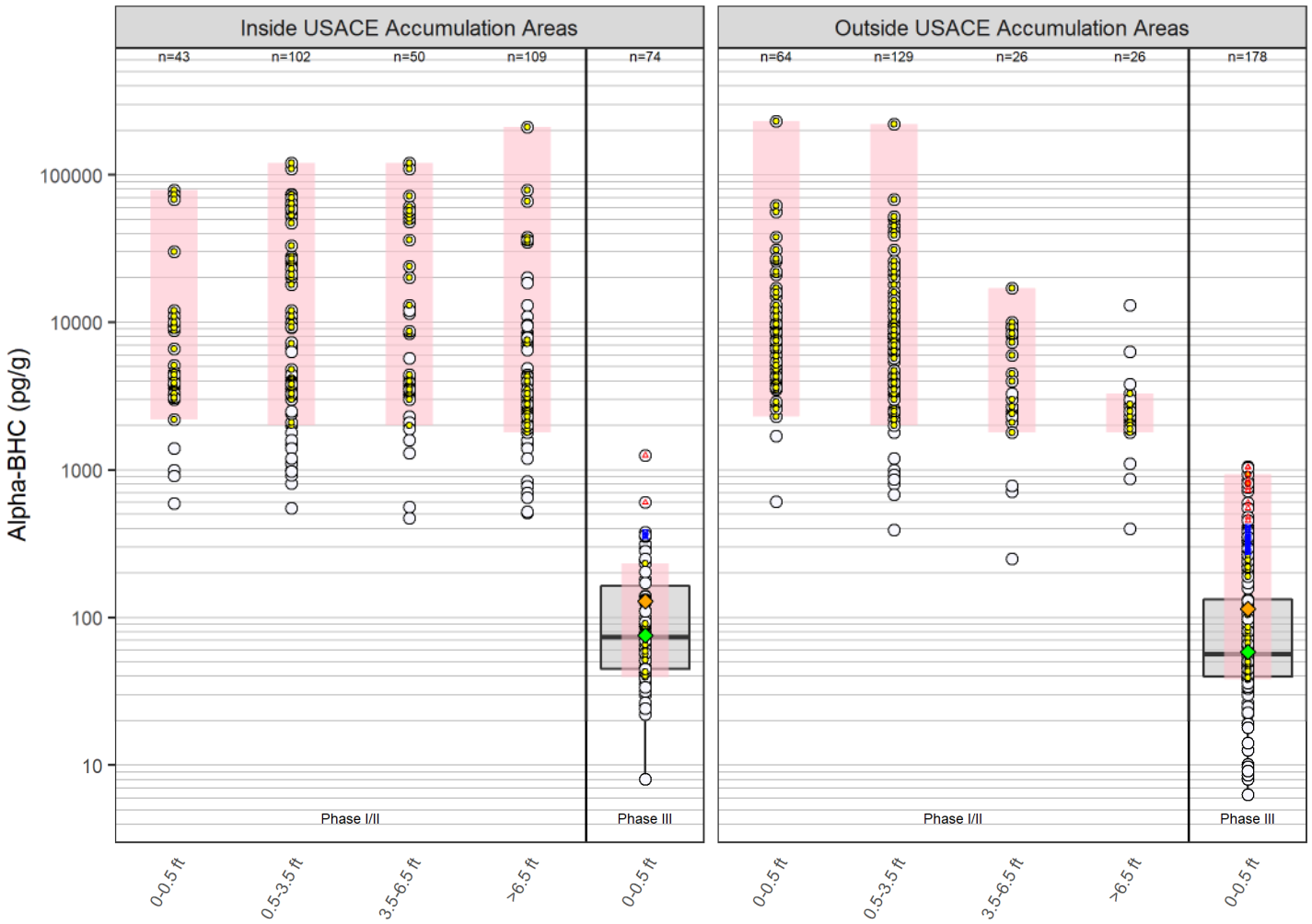
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

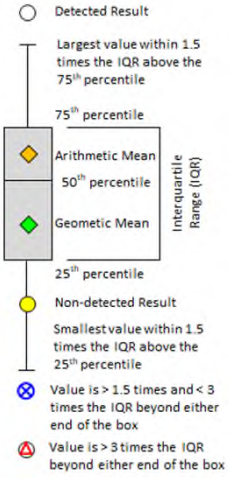
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL ALPHA + GAMMA CHLORDANE

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-157





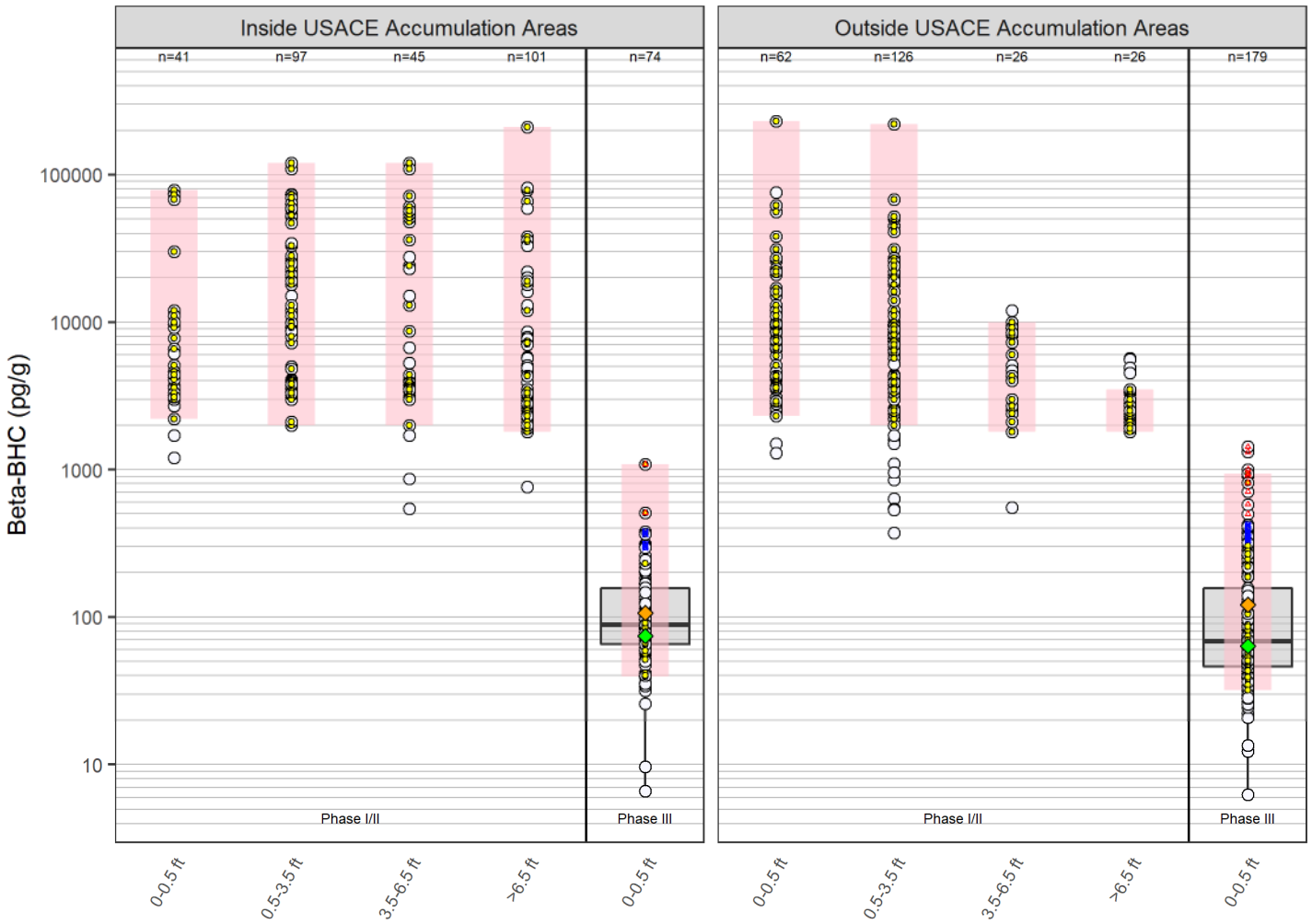
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

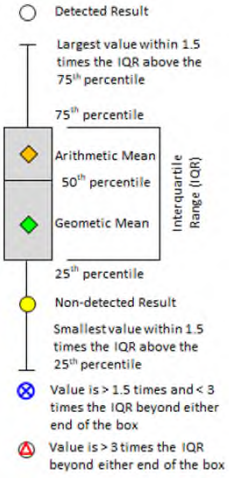
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - ALPHA-BHC

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-158





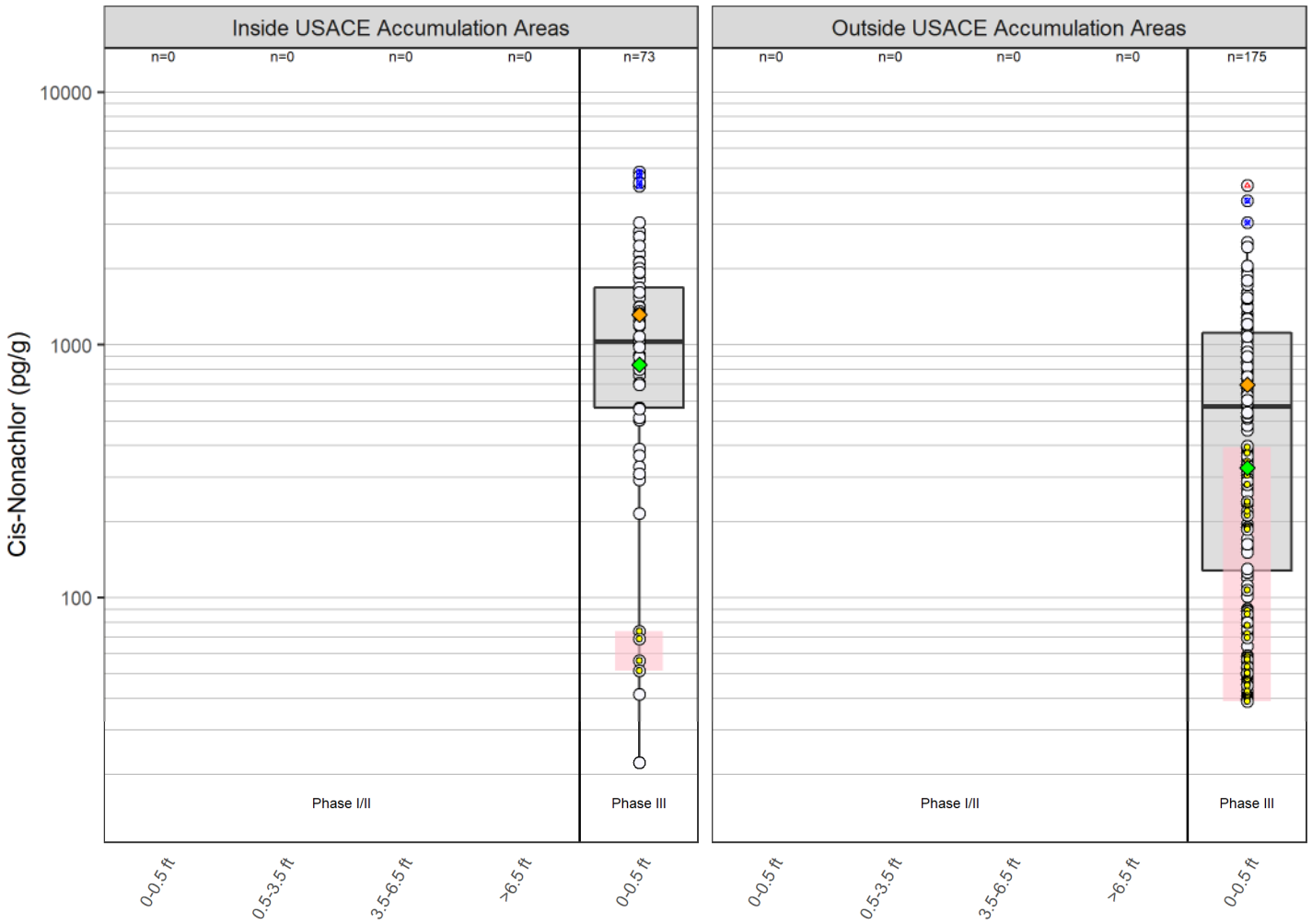
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

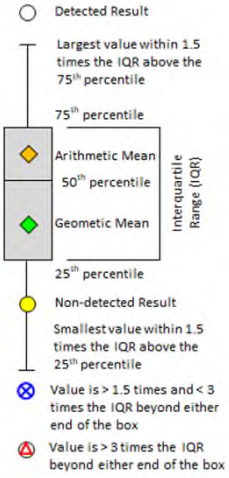
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - BETA-BHC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-159





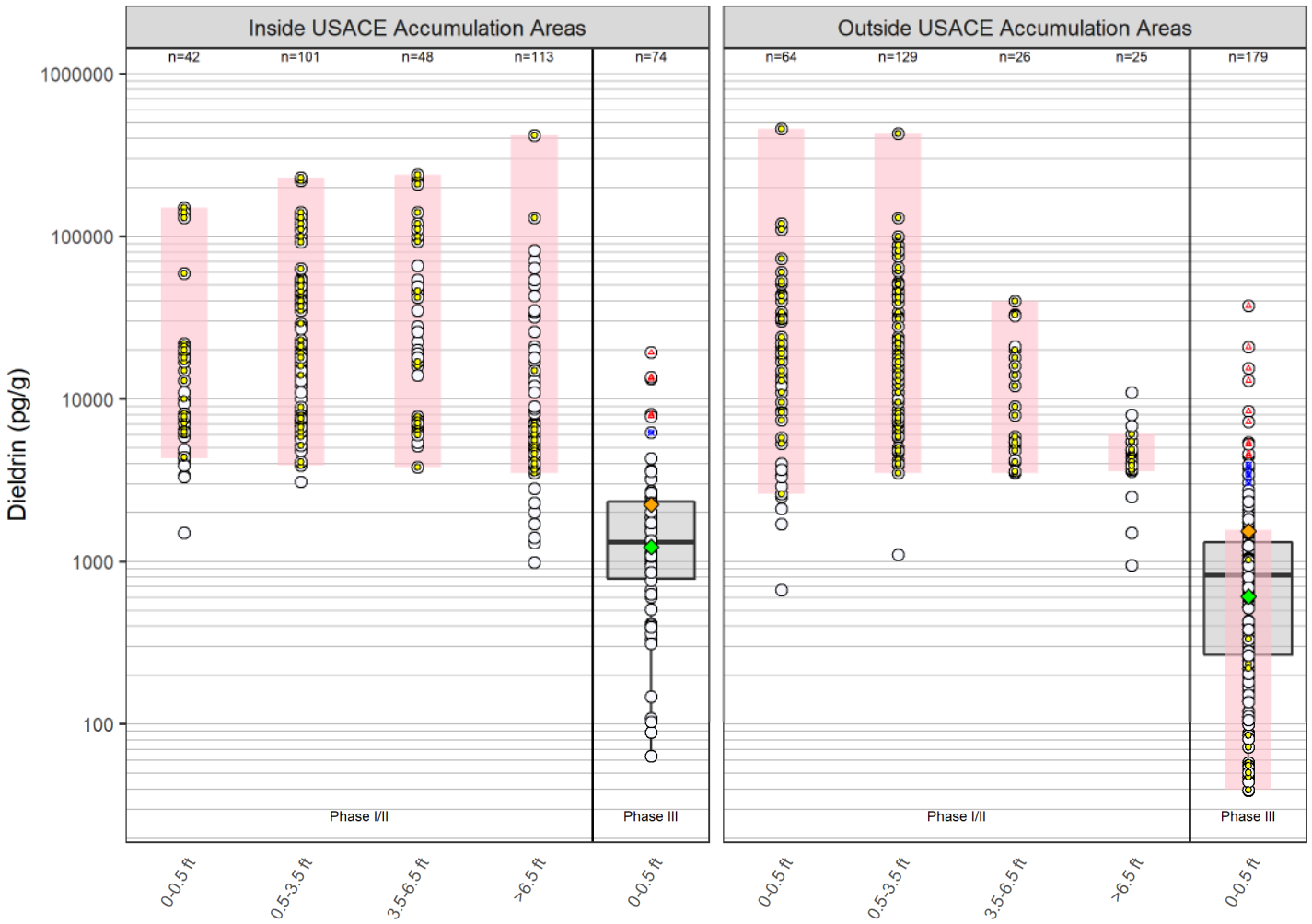
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

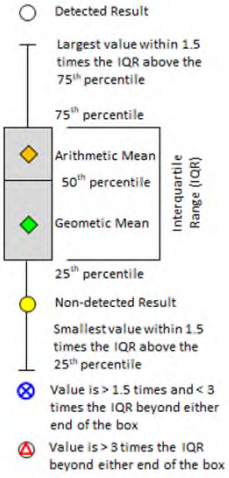
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - CIS-NONACHLOR

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-160





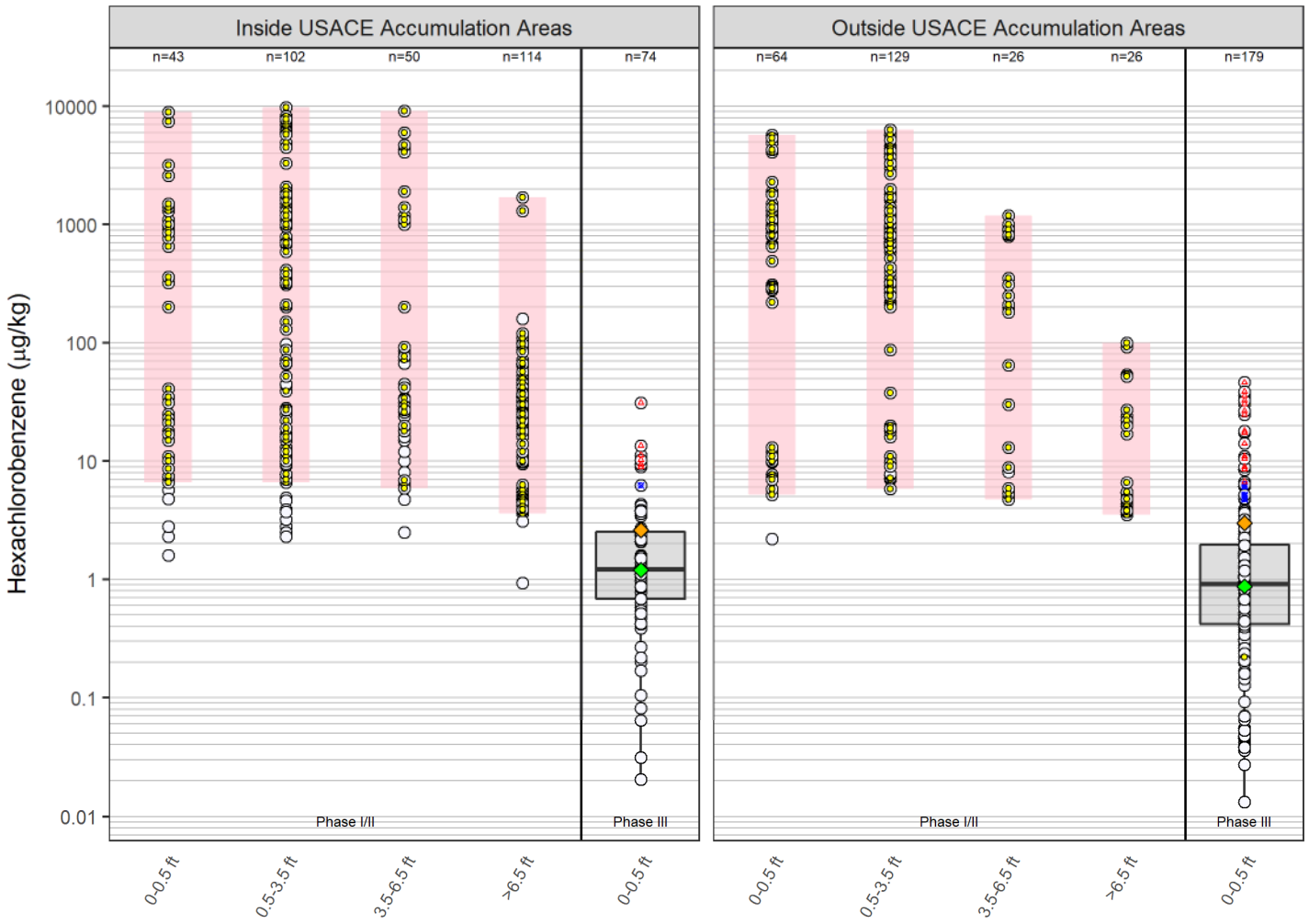
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

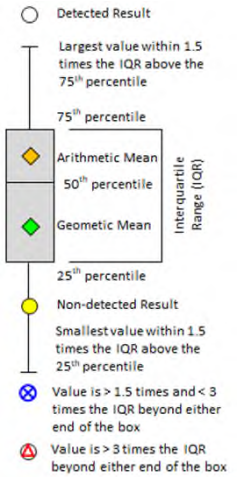
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - DIELDRIN

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-161





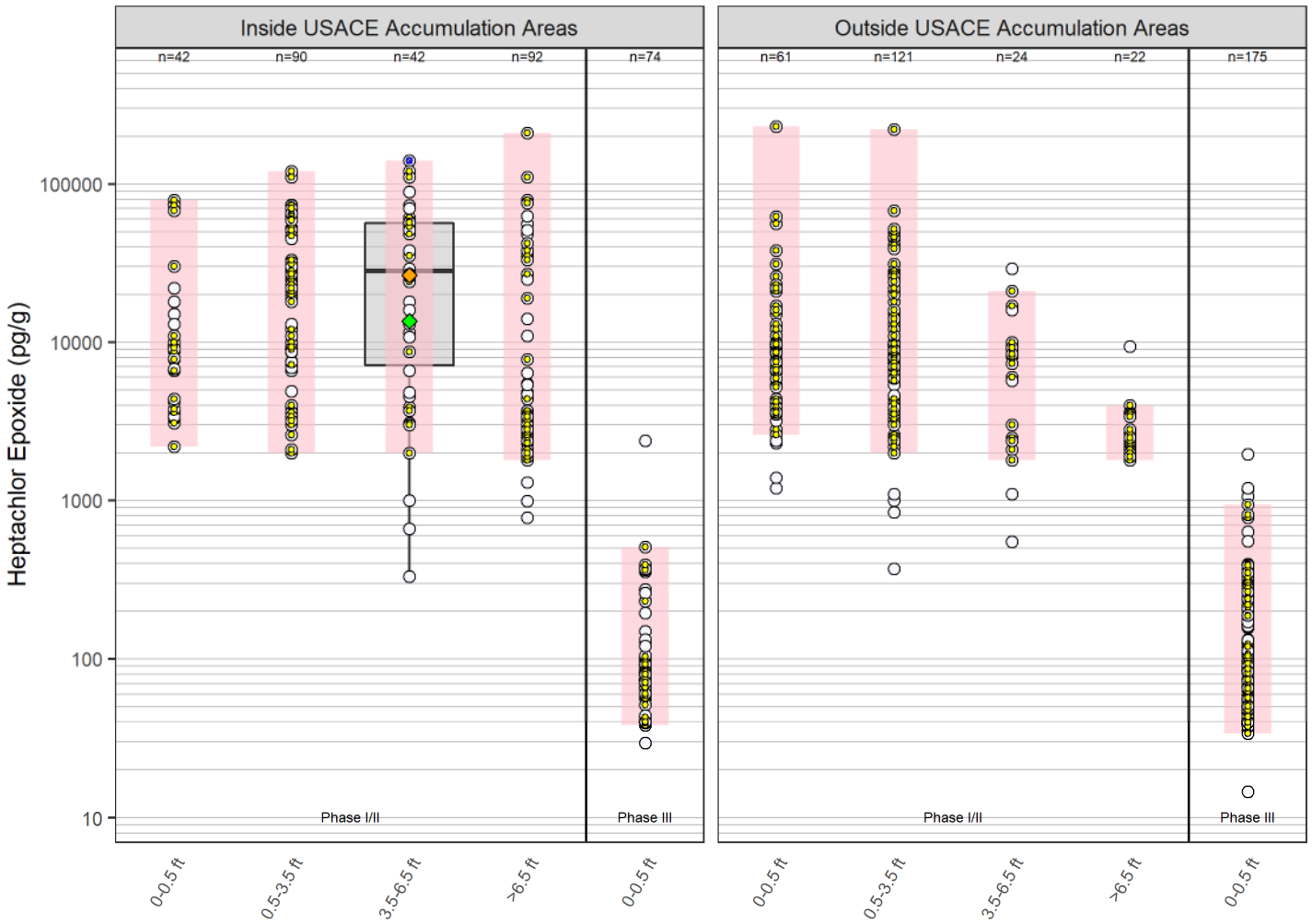
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Hexachlorobenzene was analyzed as a semi-volatile organic compound in Phase I/II and as a pesticide in Phase III. All Phase I results were non-detect.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
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United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

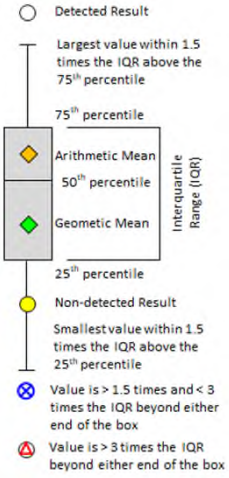
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REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - HEXACHLOROBENZENE

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-162





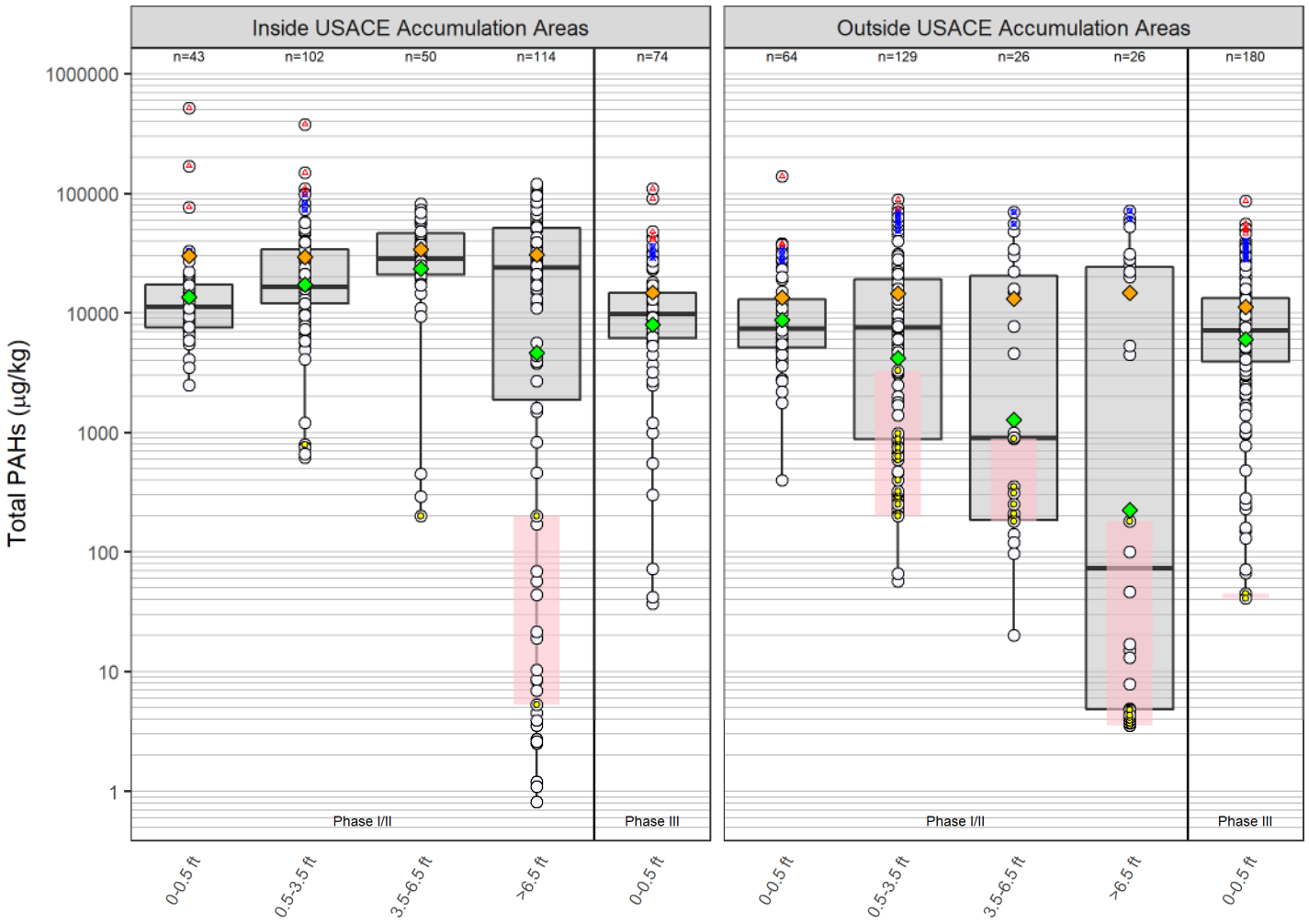
Notes:
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n = number of samples
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Top depth >= 6.5 ft = >6.5 ft
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

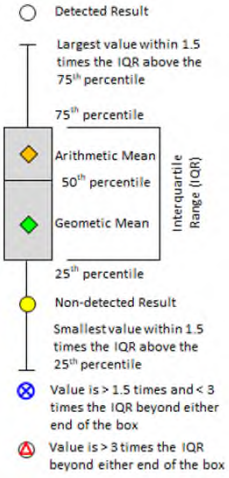
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - HEPTACHLOR EPOXIDE

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-163





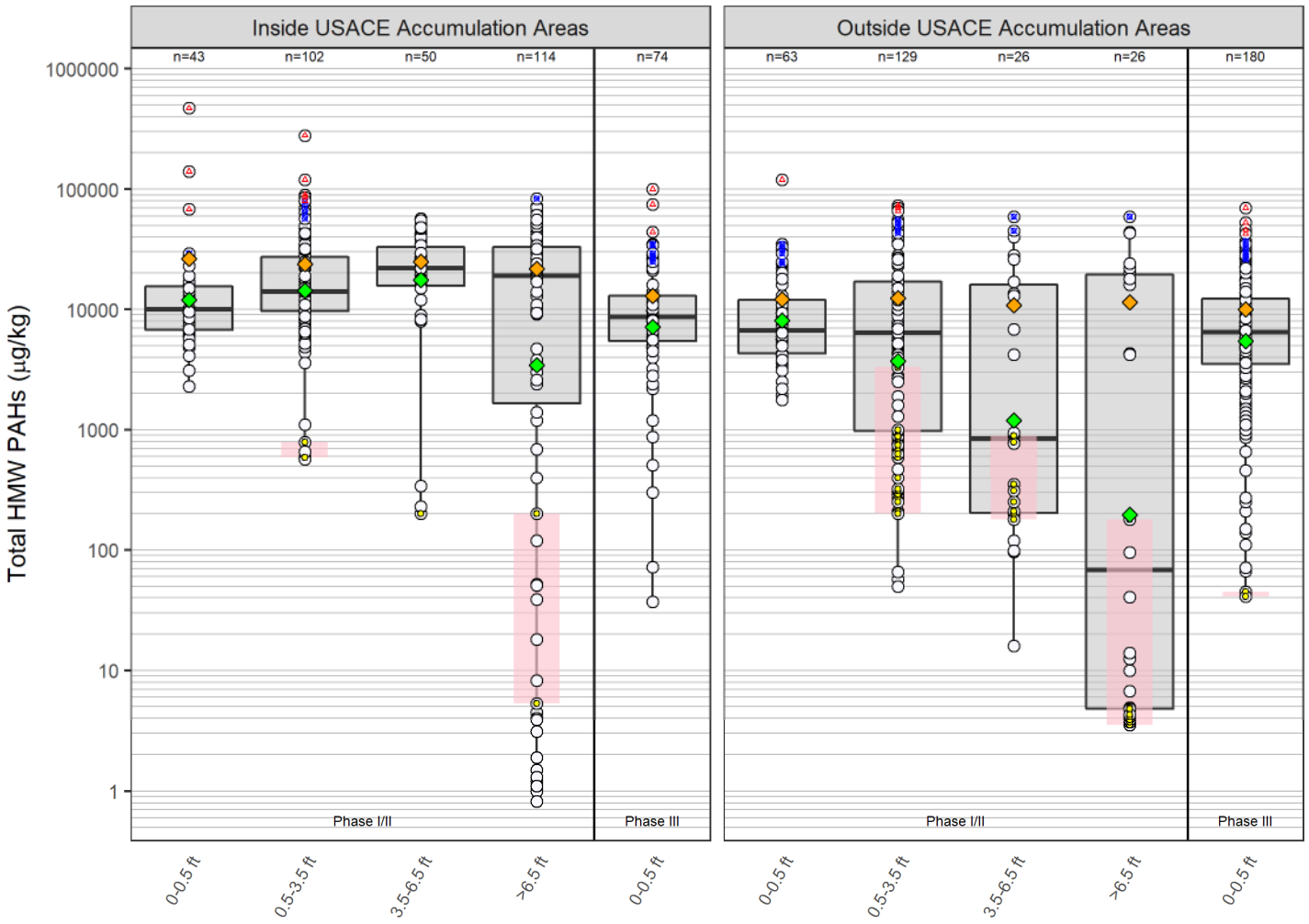
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

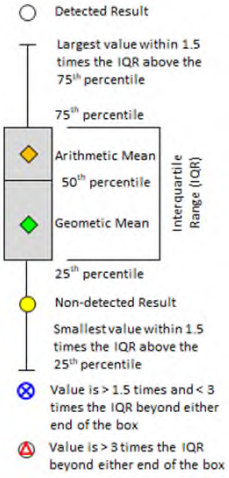
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL PAHS

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-164





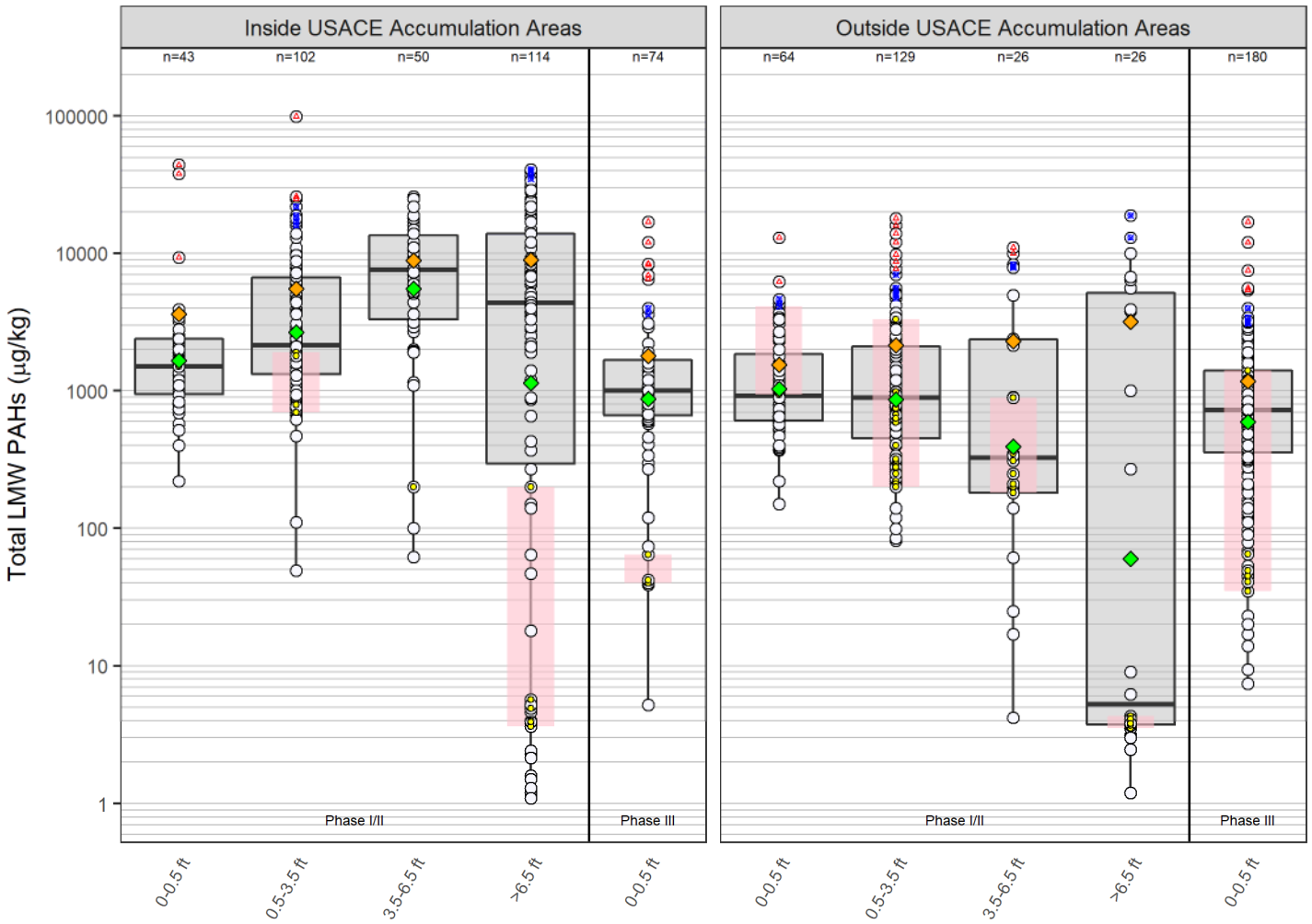
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

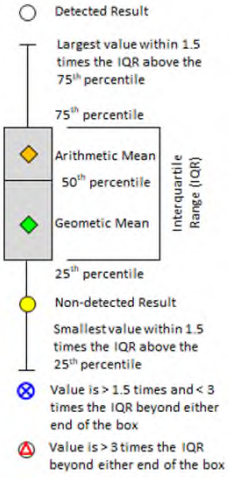
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL HMW PAHS

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-165





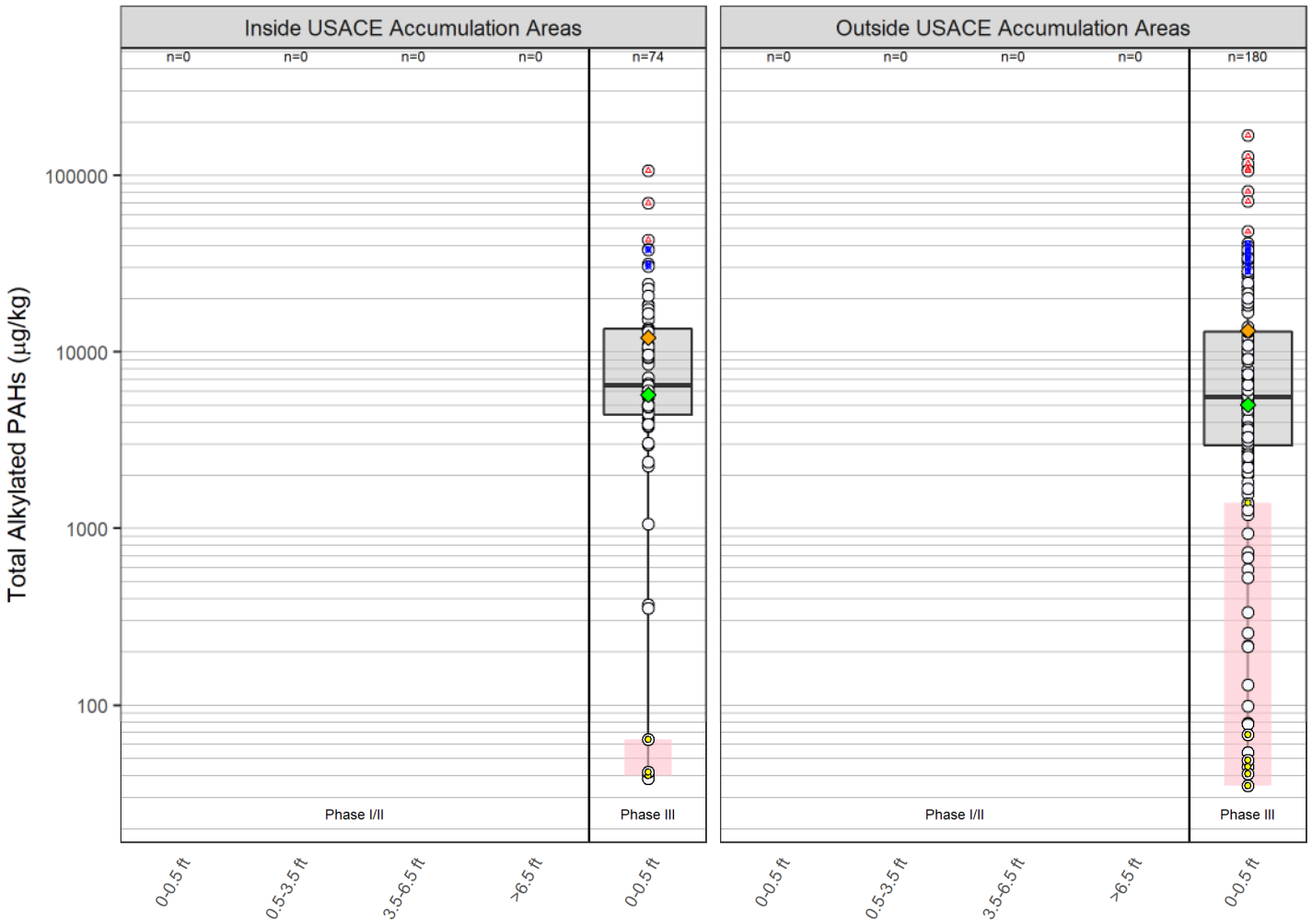
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

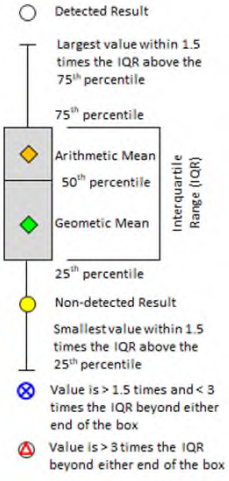
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL LMW PAHS

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-166





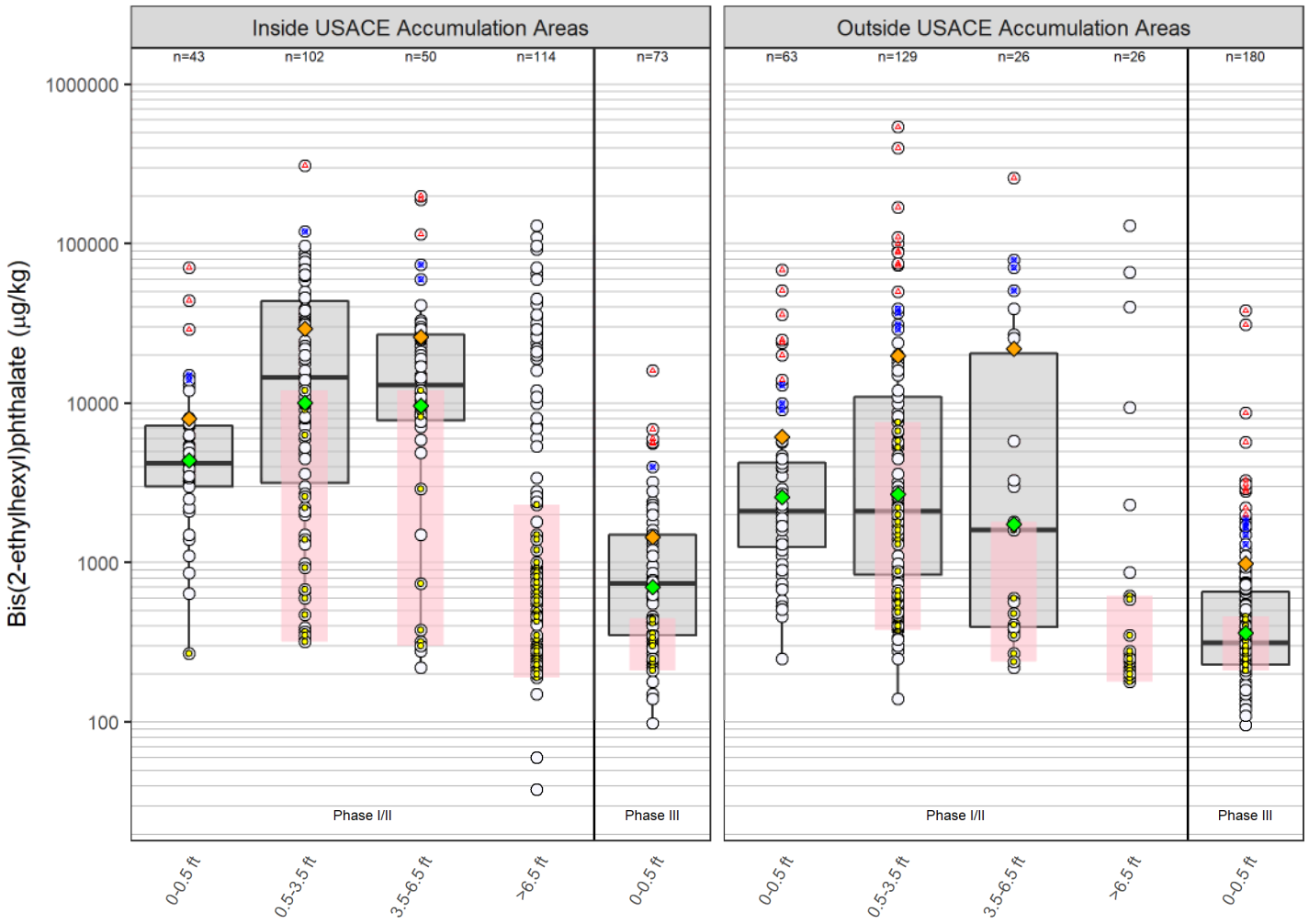
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Alkylated PAHs were not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
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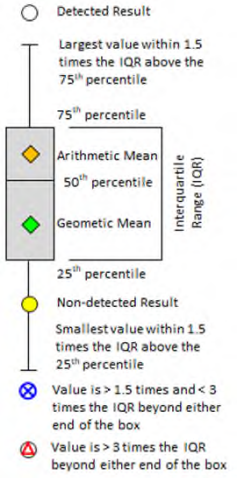
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL ALKYLATED PAHS

OXY Glenn Springs Holdings, Inc.
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FIGURE
F-167





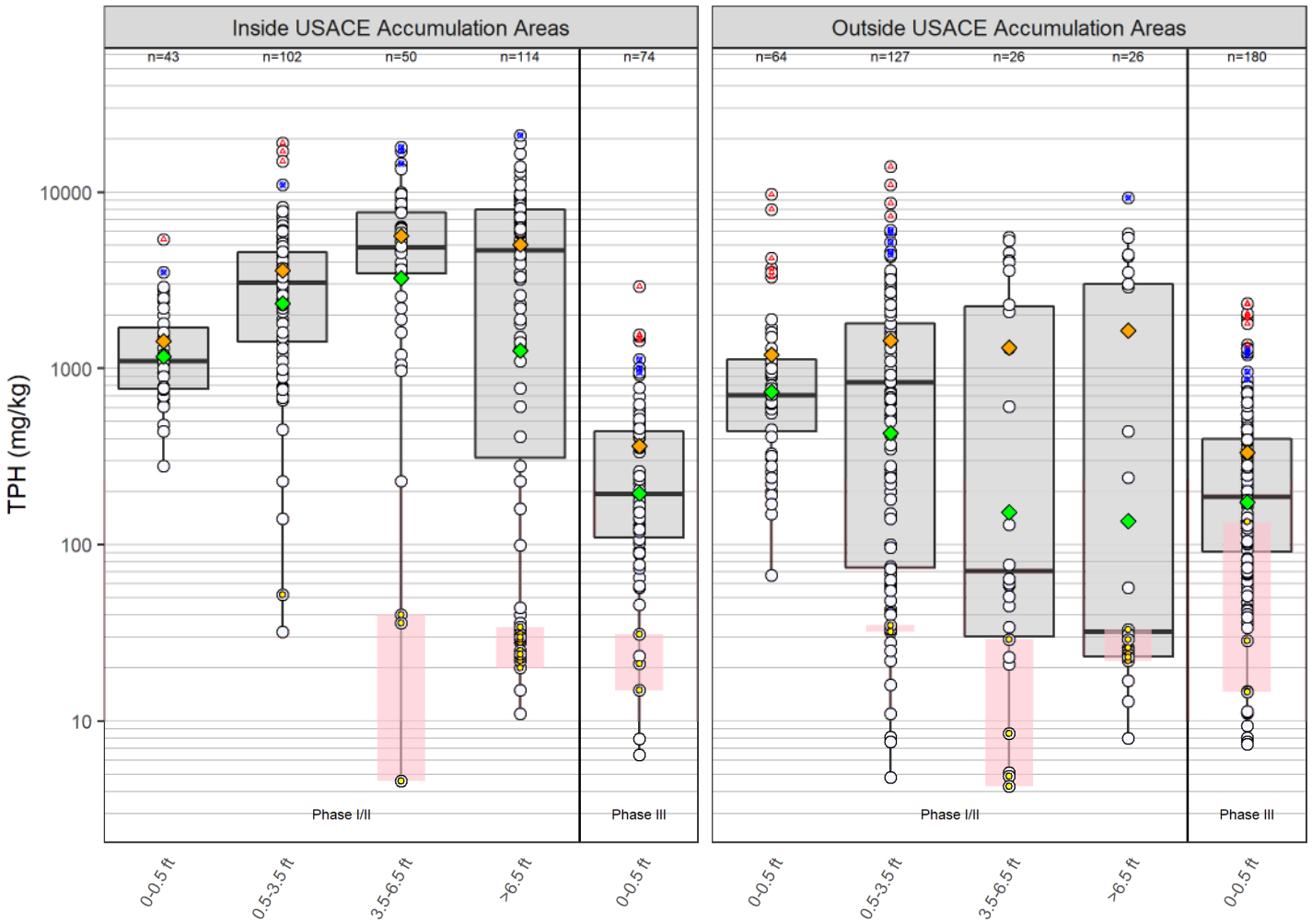
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

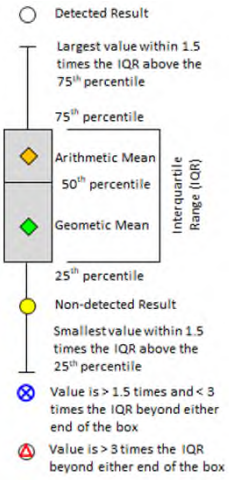
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - BIS(2-ETHYLHEXYL)PHTHALATE

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-168





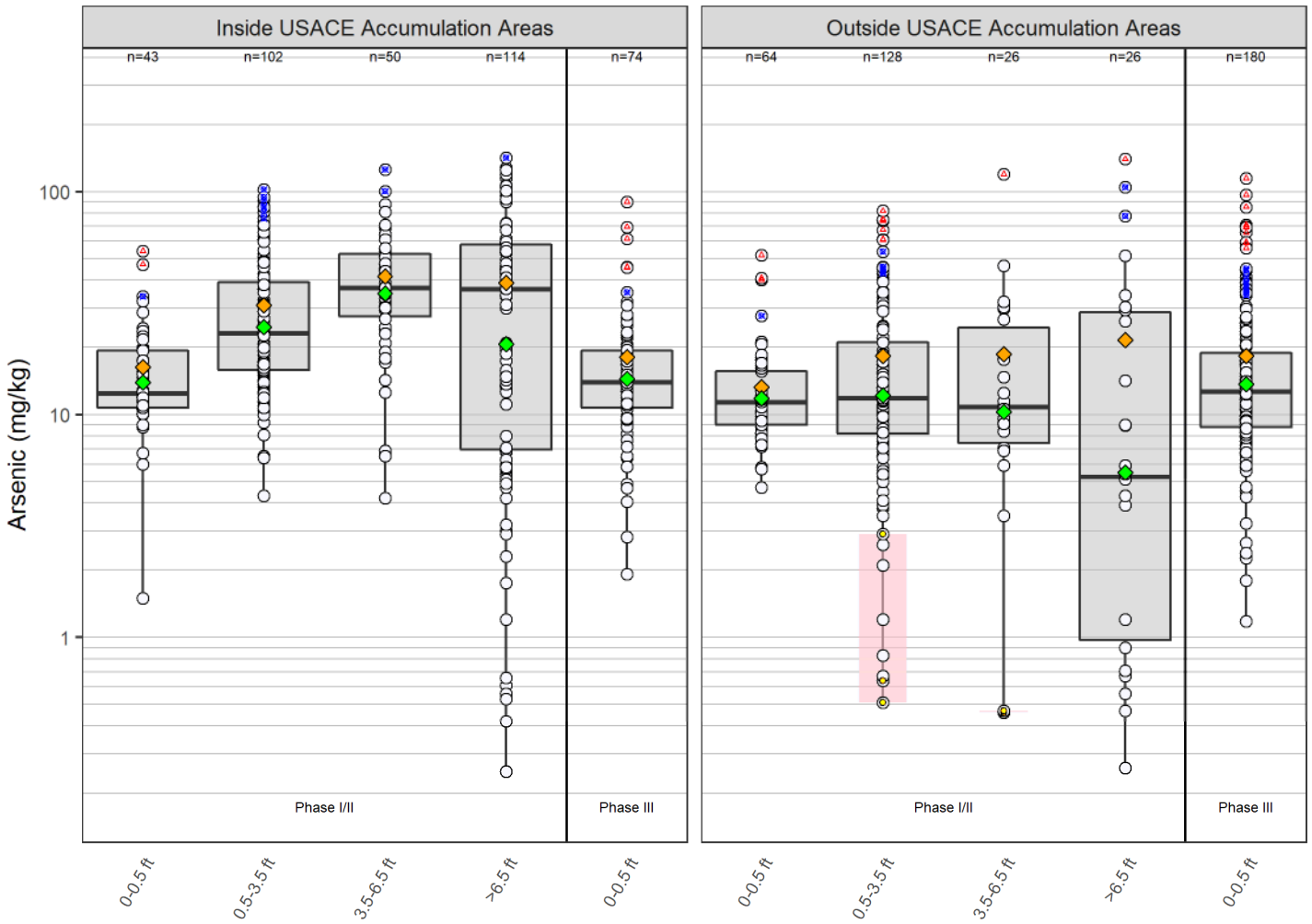
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.
The Phase I/II TPH data represent total extractable petroleum hydrocarbons (TEPH) whereas Phase III TPH data represent C9-C40 hydrocarbons.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TPH

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-169



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

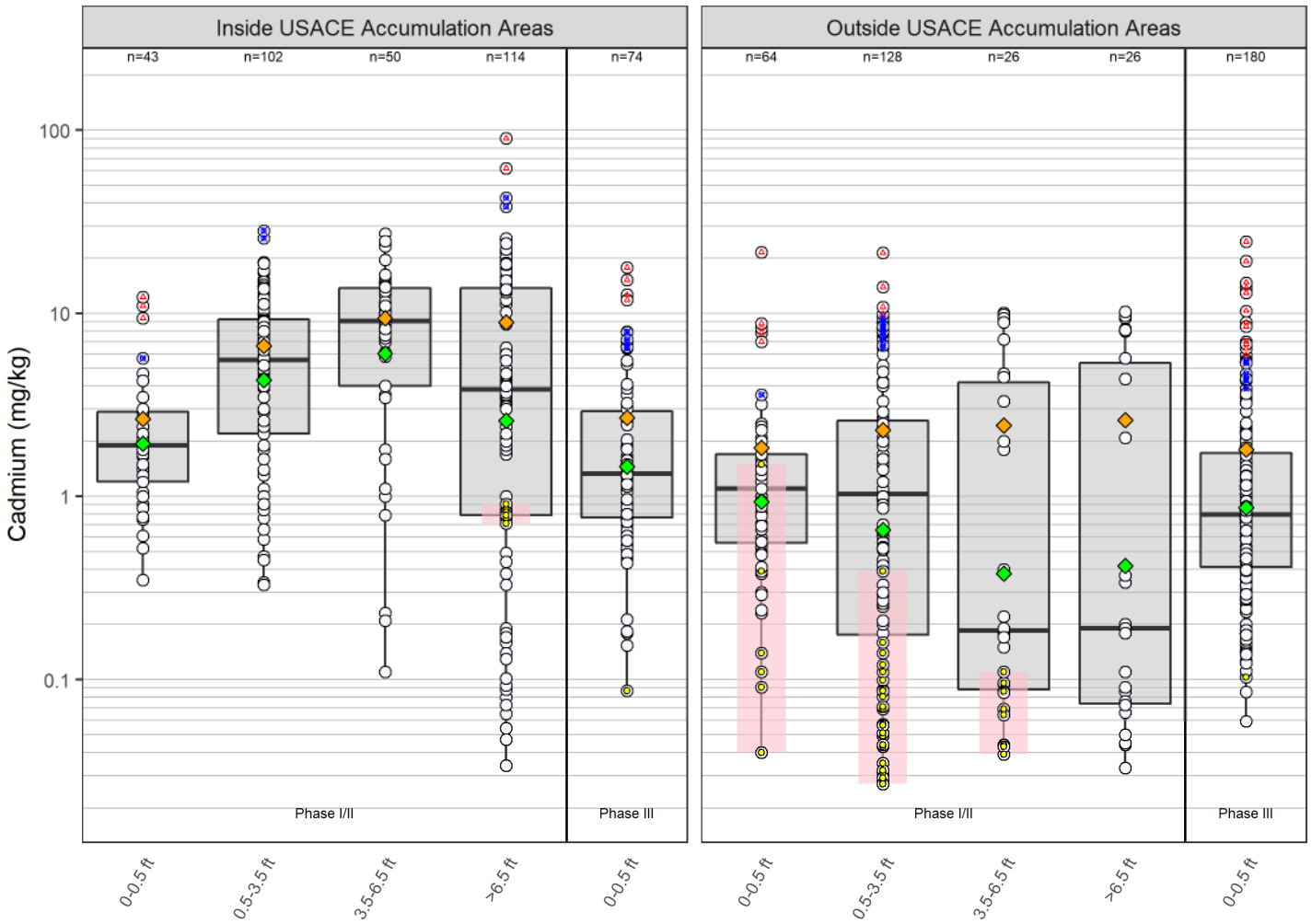
Notes:
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Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
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Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - ARSENIC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-170



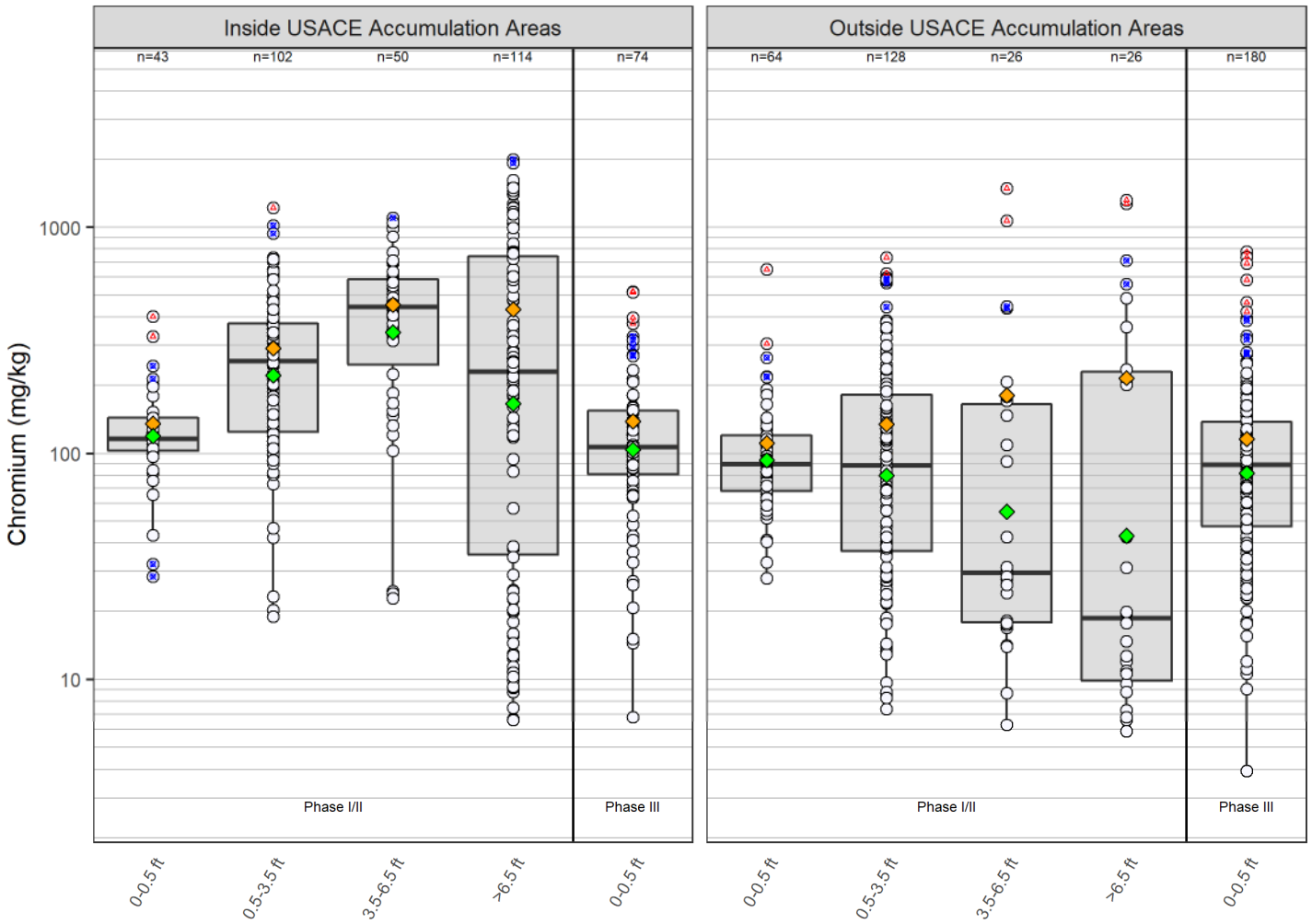
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

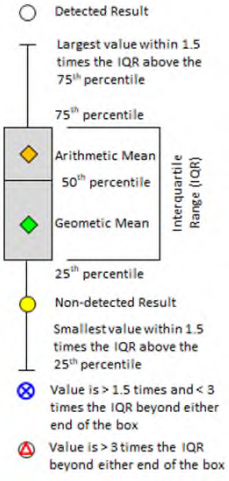
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - CADMIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-171





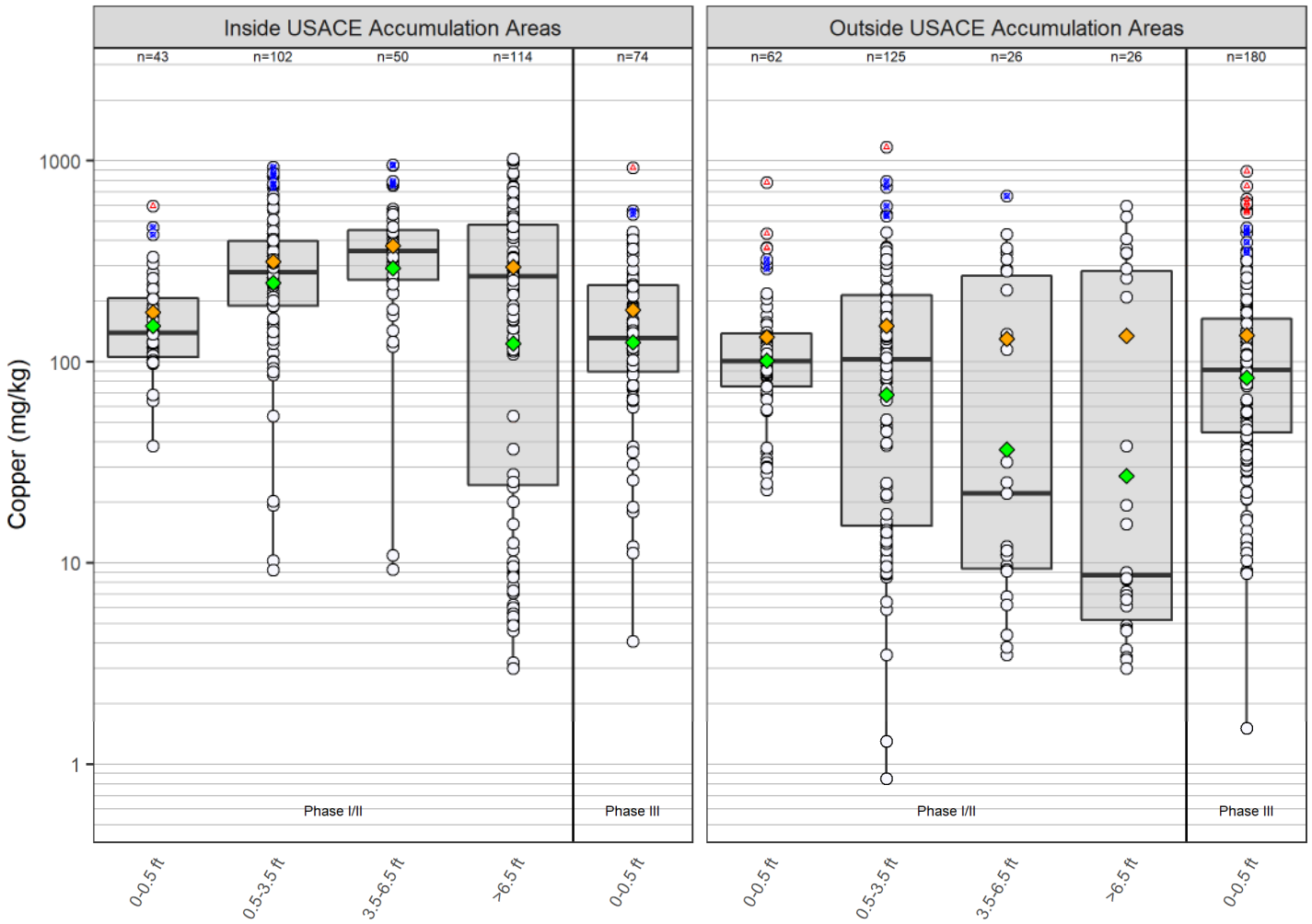
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

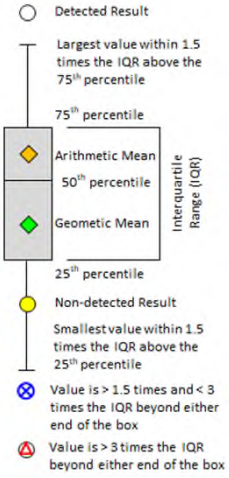
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - CHROMIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-172





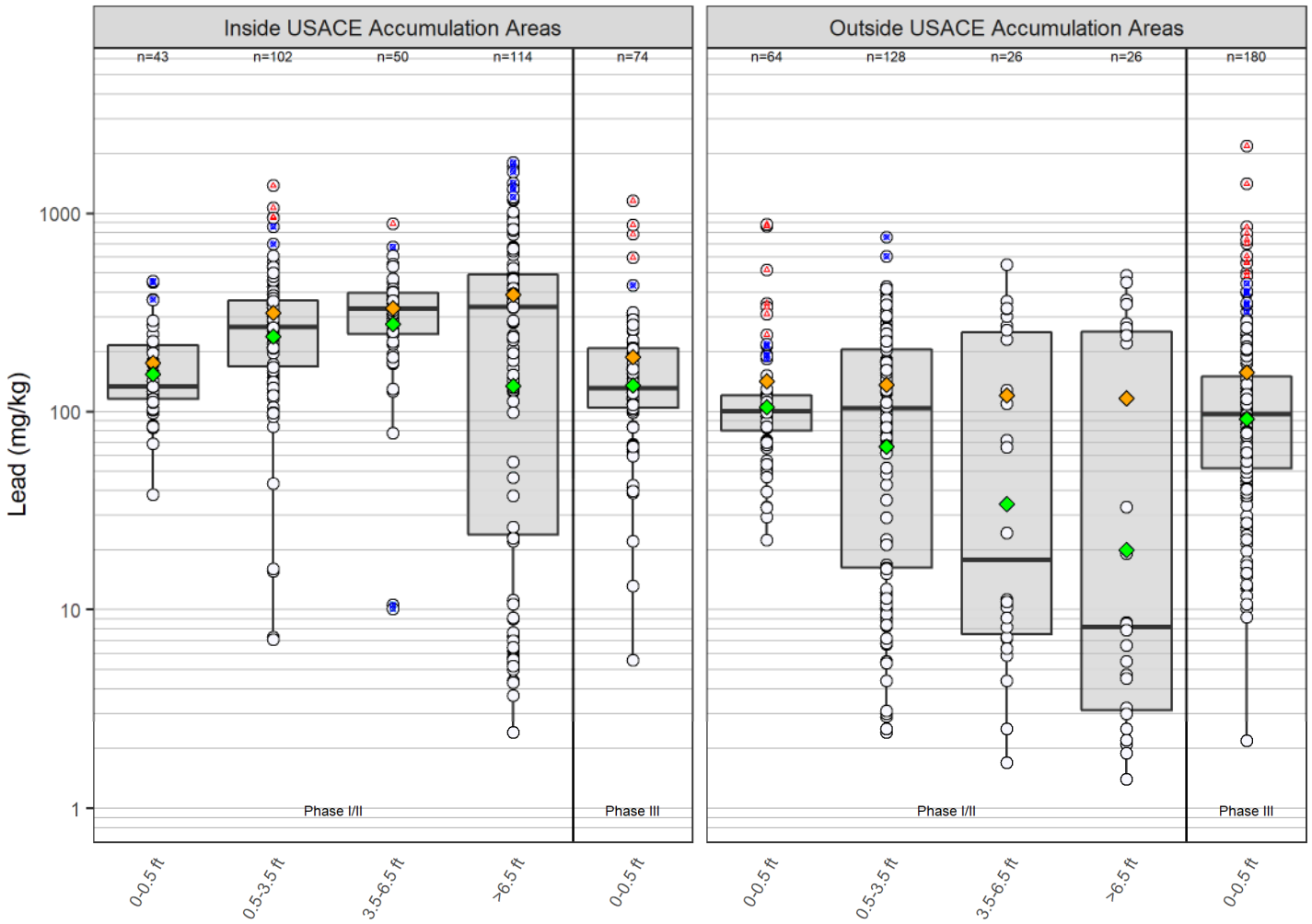
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

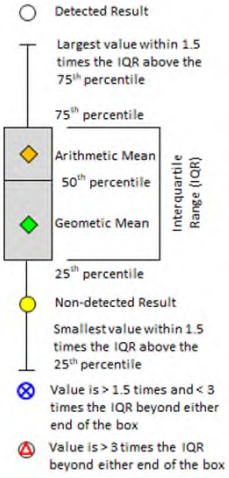
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - COPPER

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-173





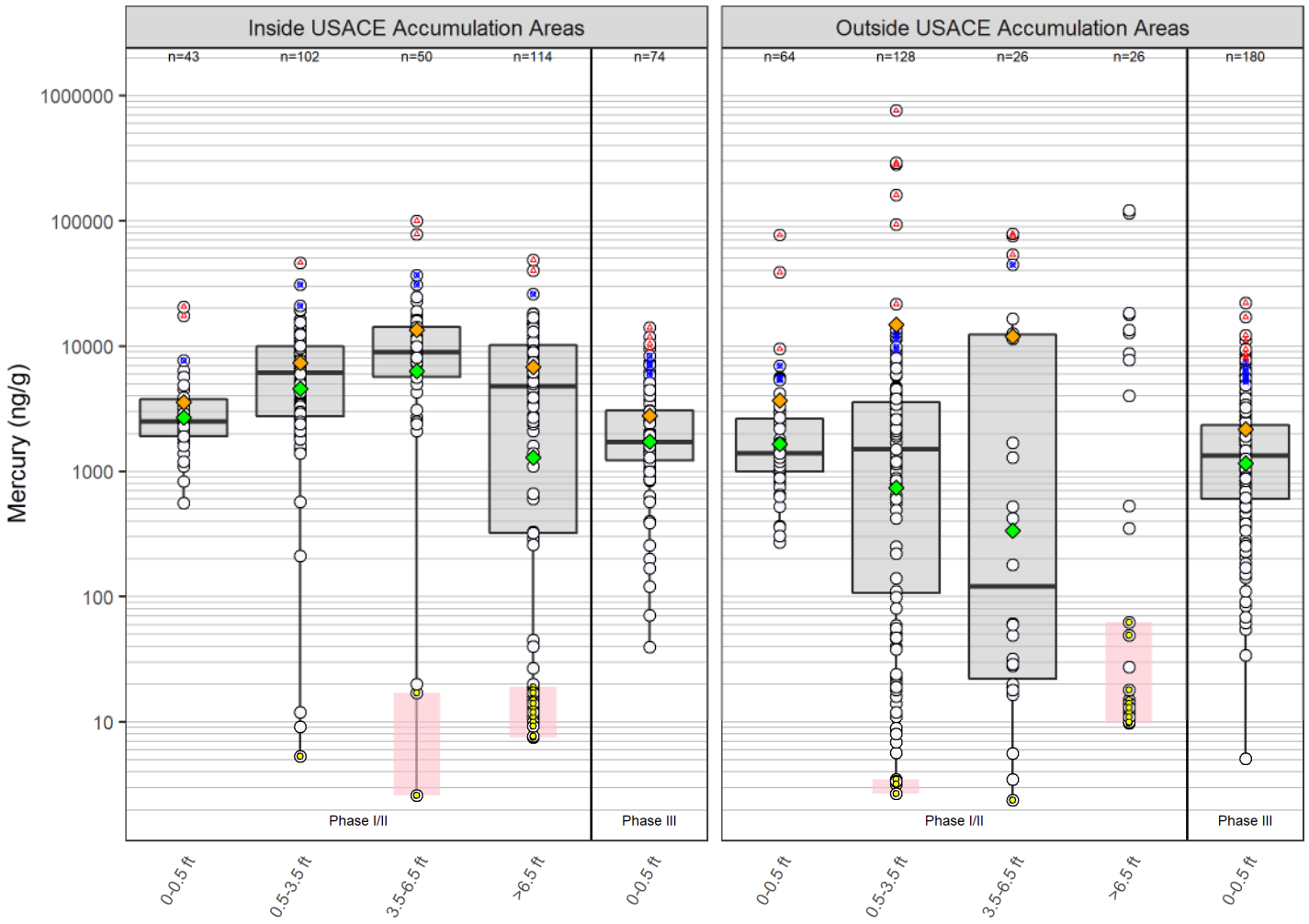
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

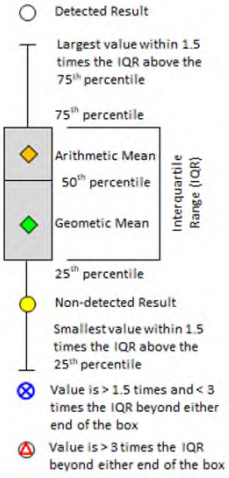
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - LEAD

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-174





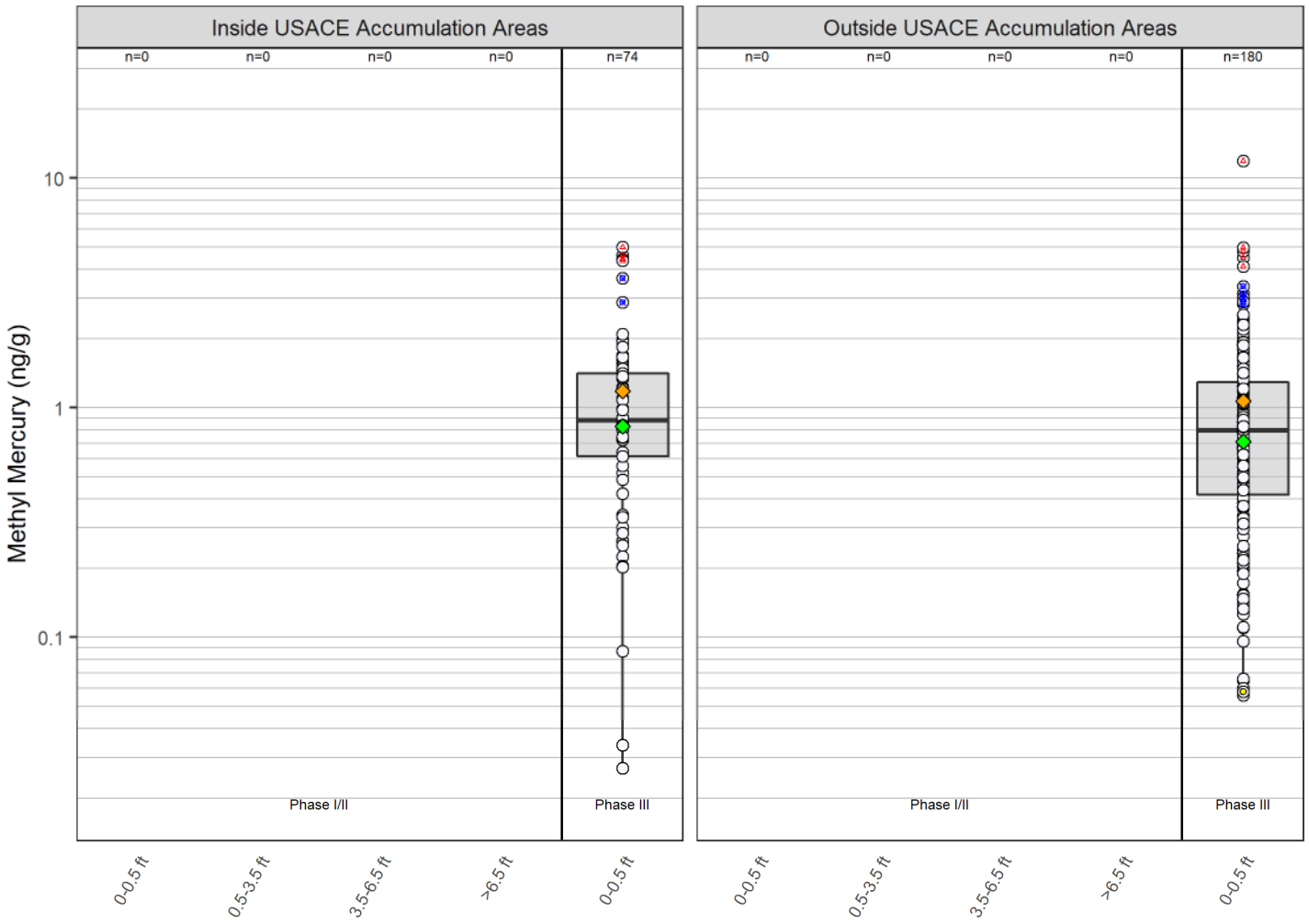
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

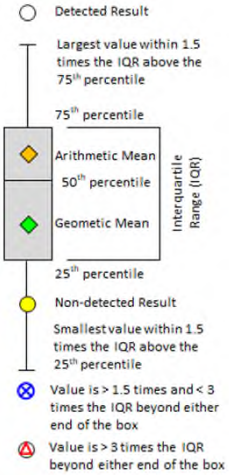
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - MERCURY

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-175





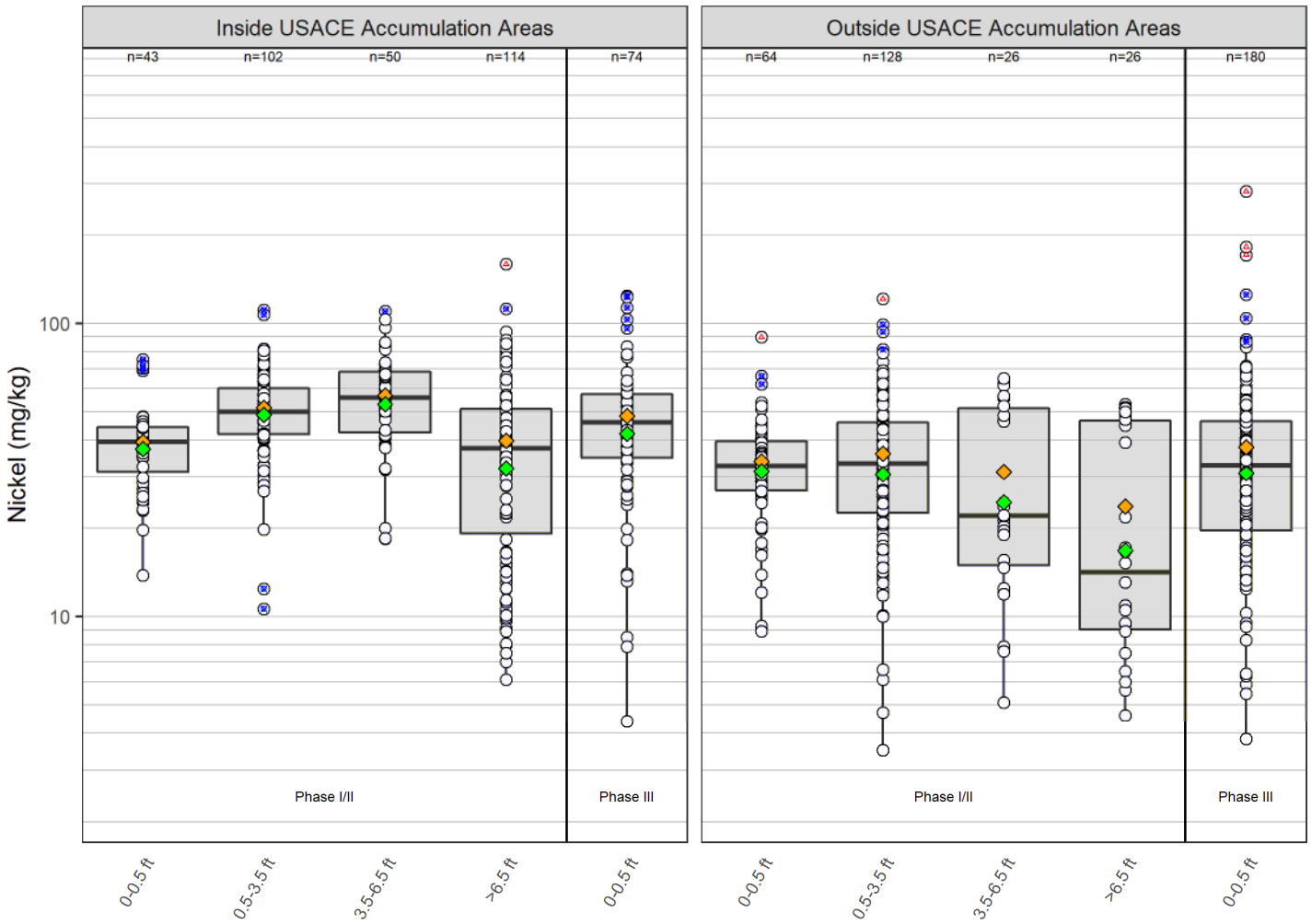
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Methyl mercury was not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

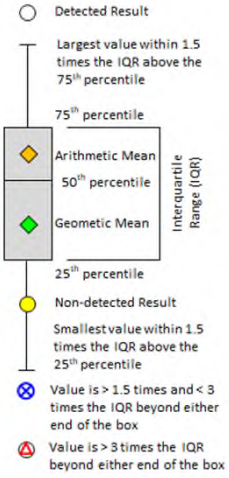
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - METHYL MERCURY

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-176





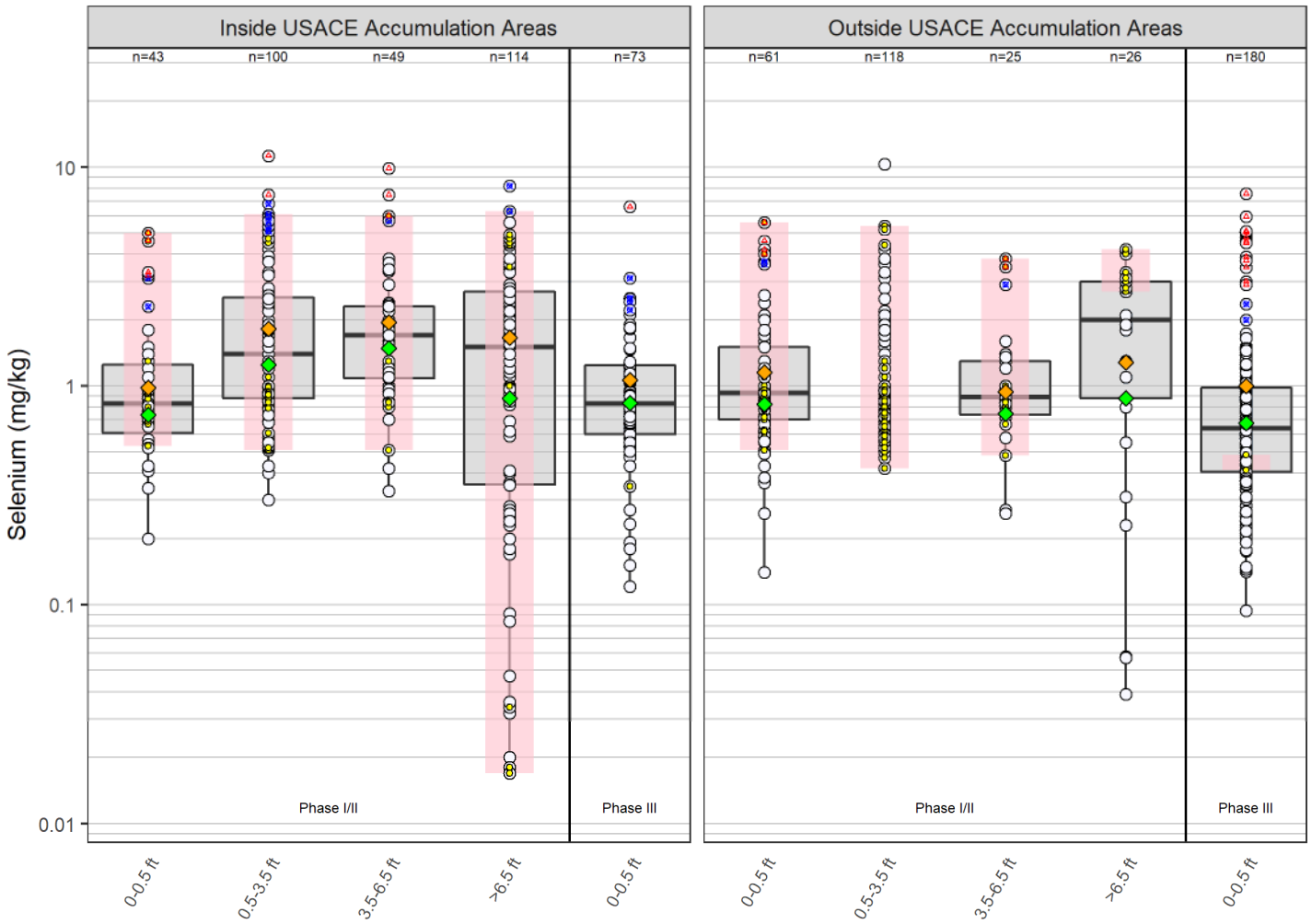
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

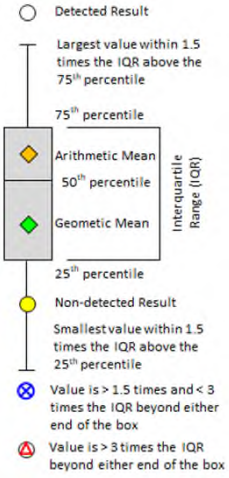
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - NICKEL

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-177





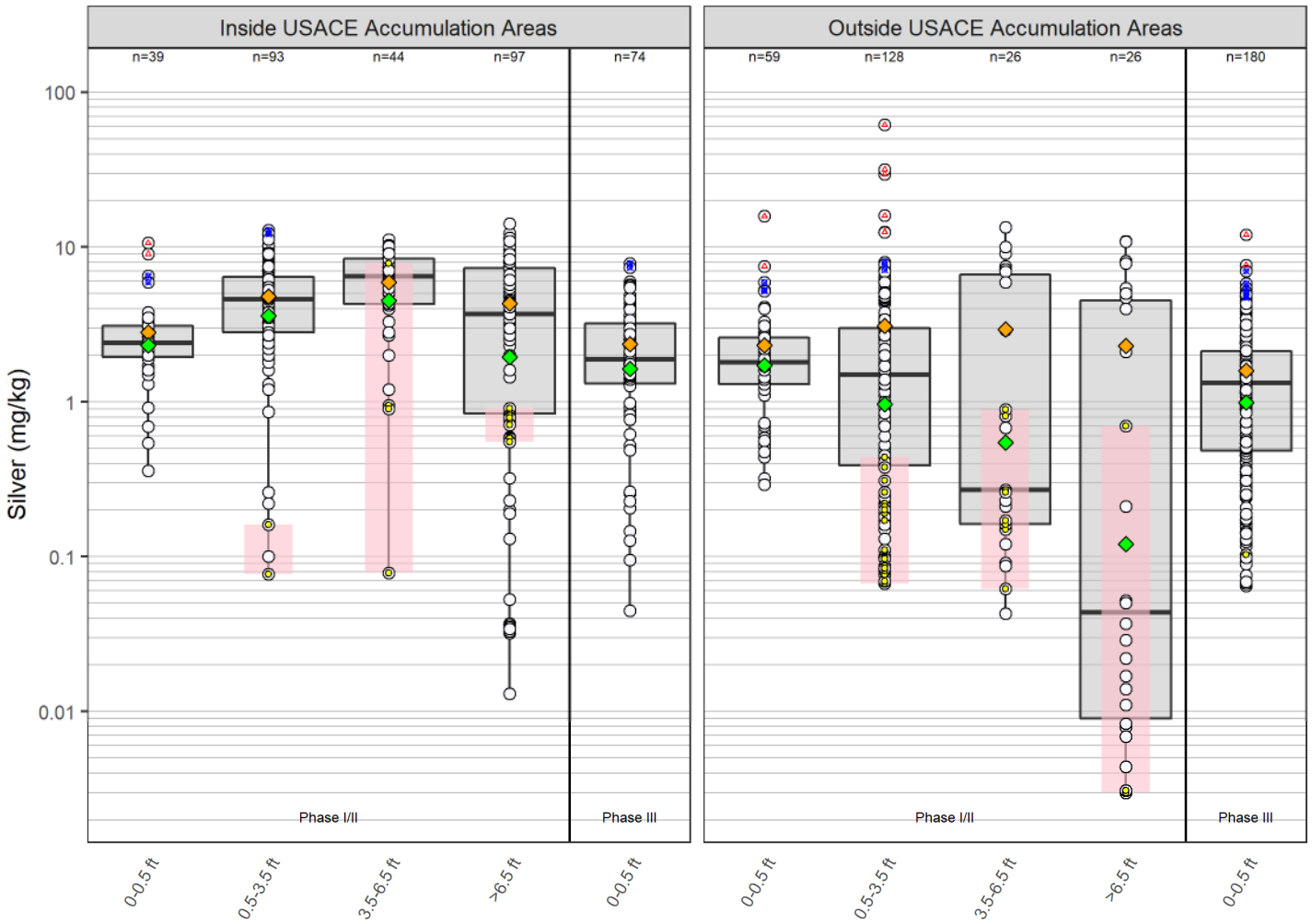
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

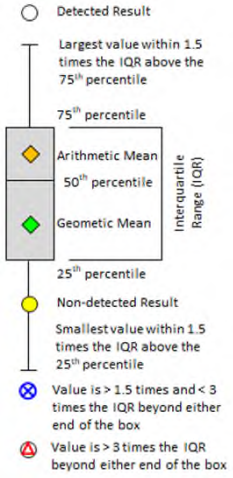
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - SELENIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-178





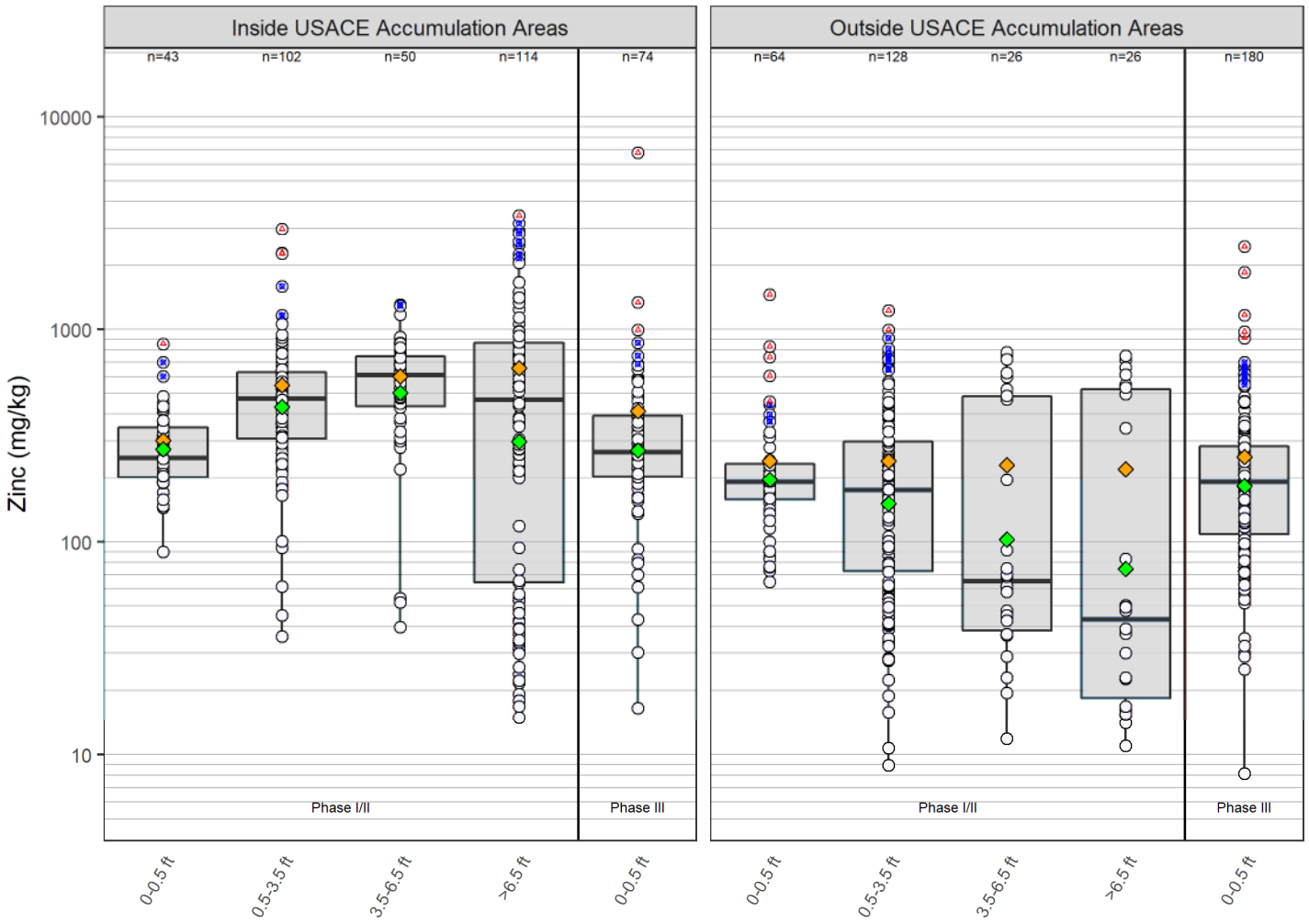
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - SILVER

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-179



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

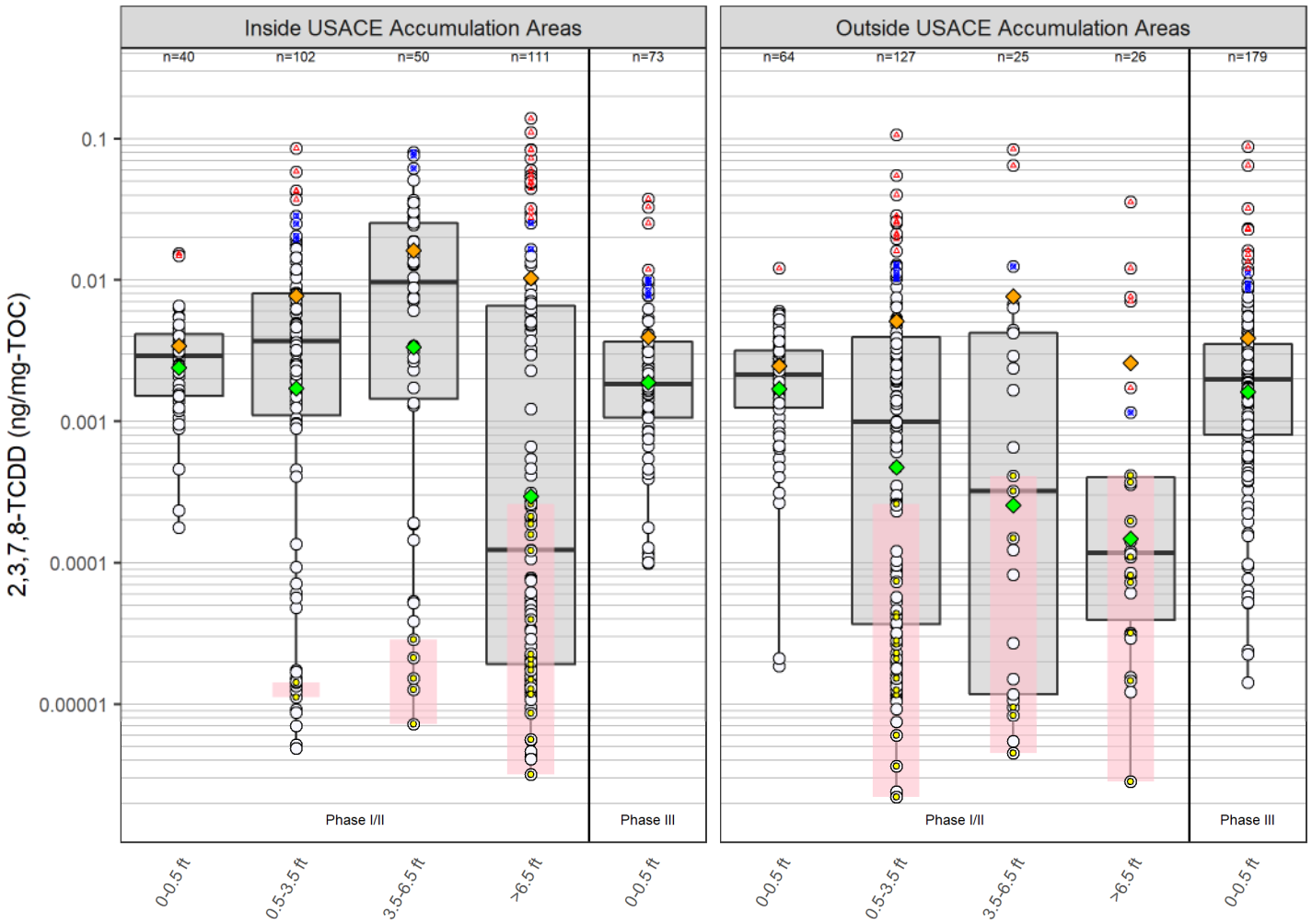
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

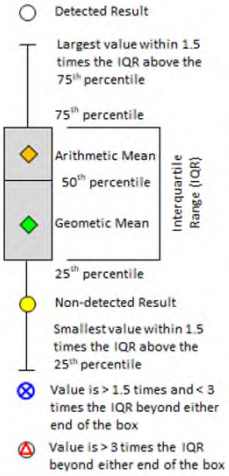
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - ZINC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-180





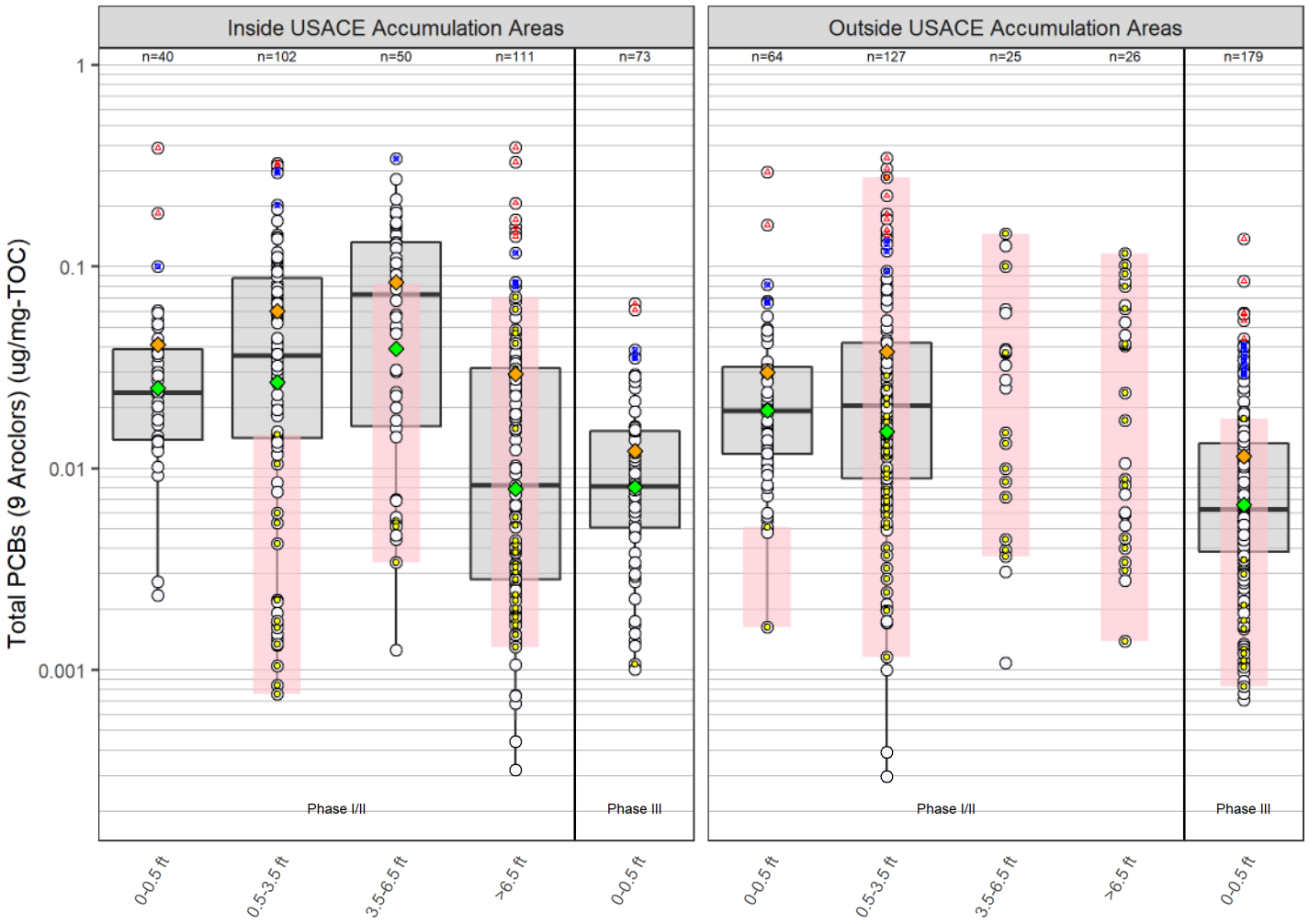
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

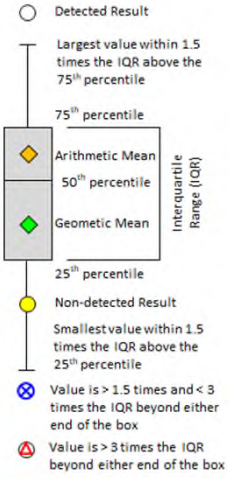
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - 2,3,7,8-TCDD-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-181





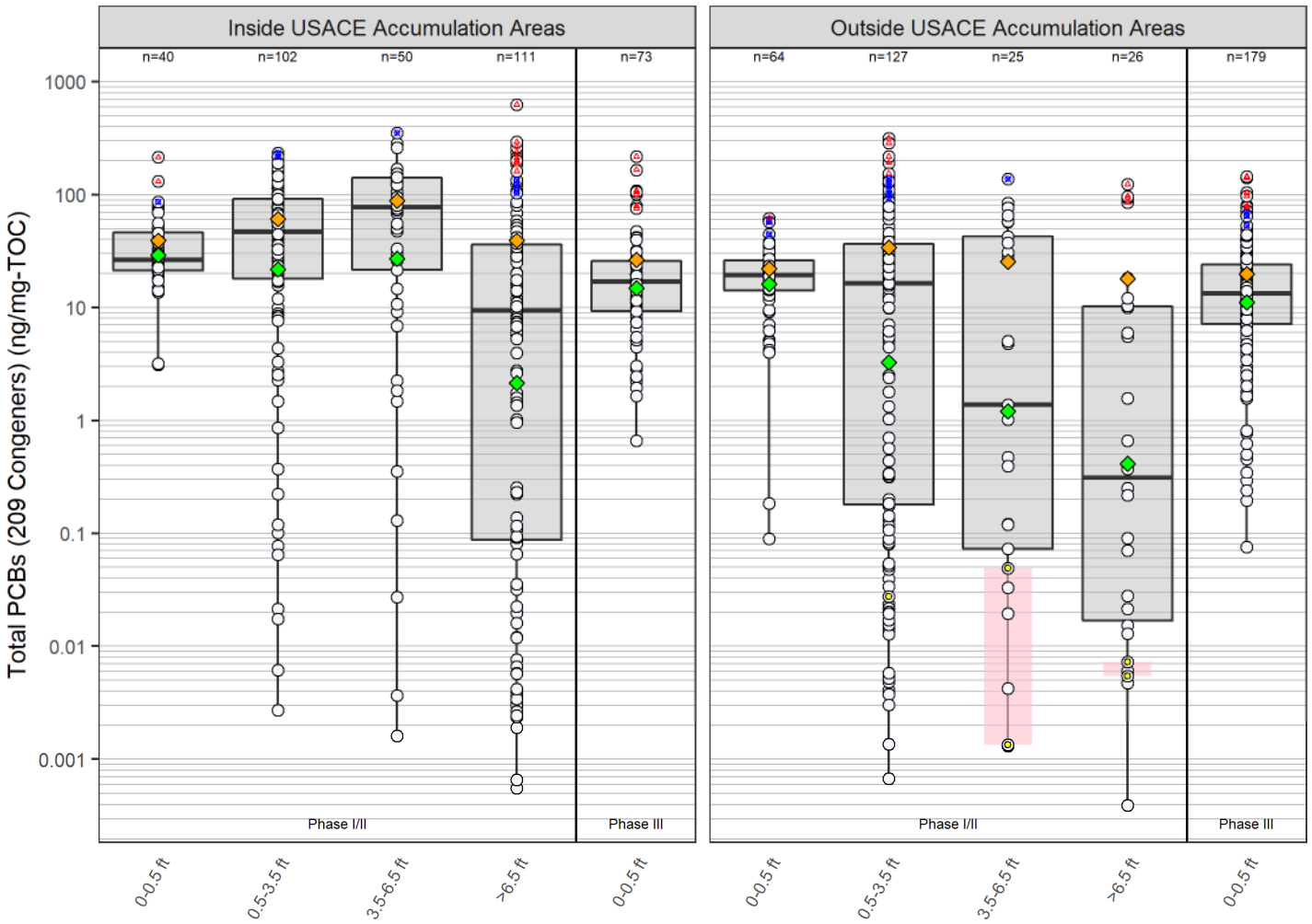
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

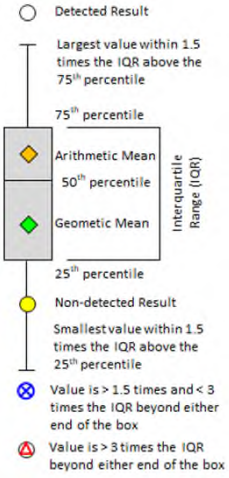
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL PCBS (9 AROCLORS)-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-182





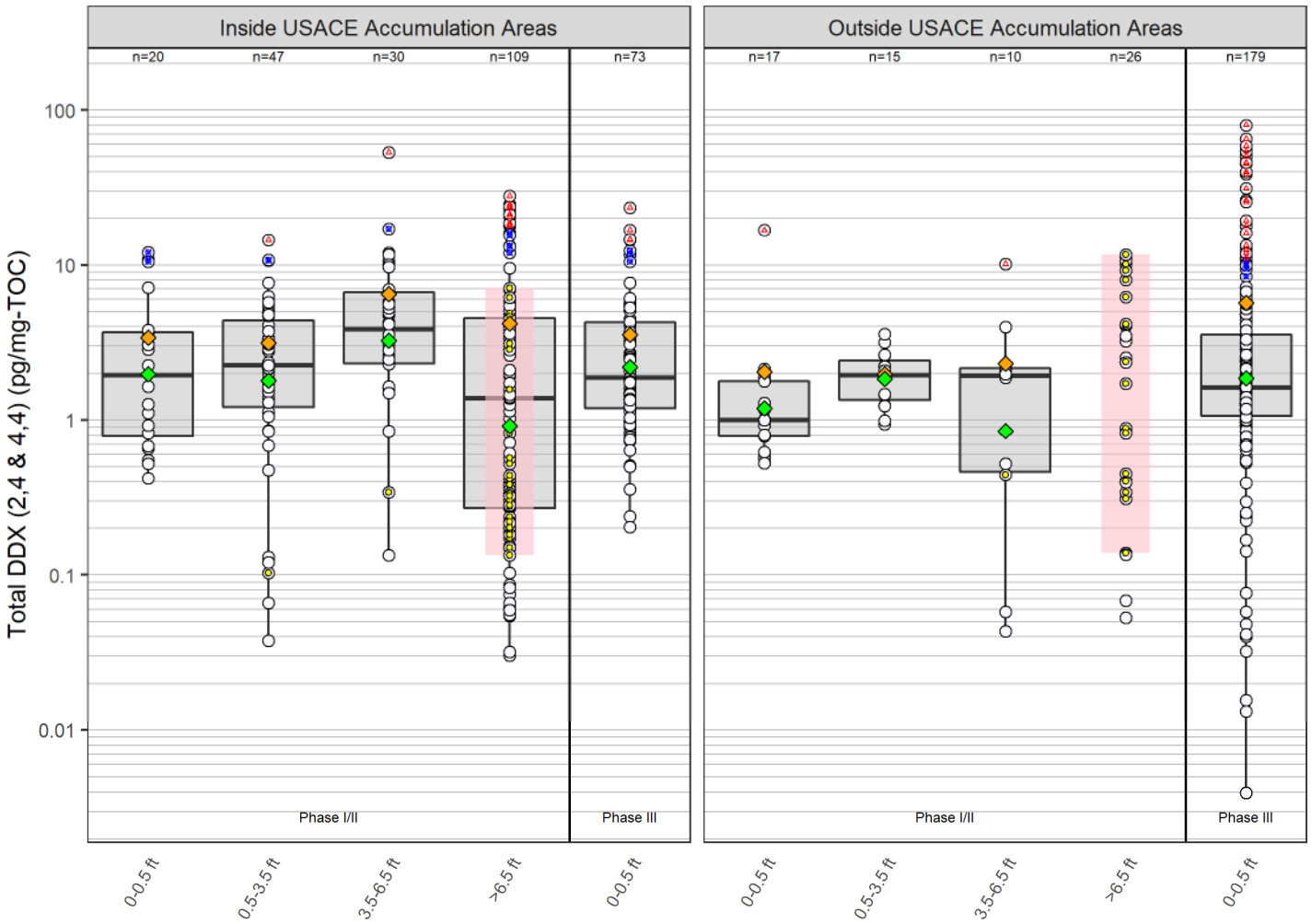
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

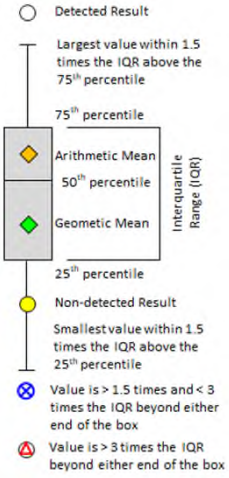
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL PCB (209 CONGENERS)-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-183





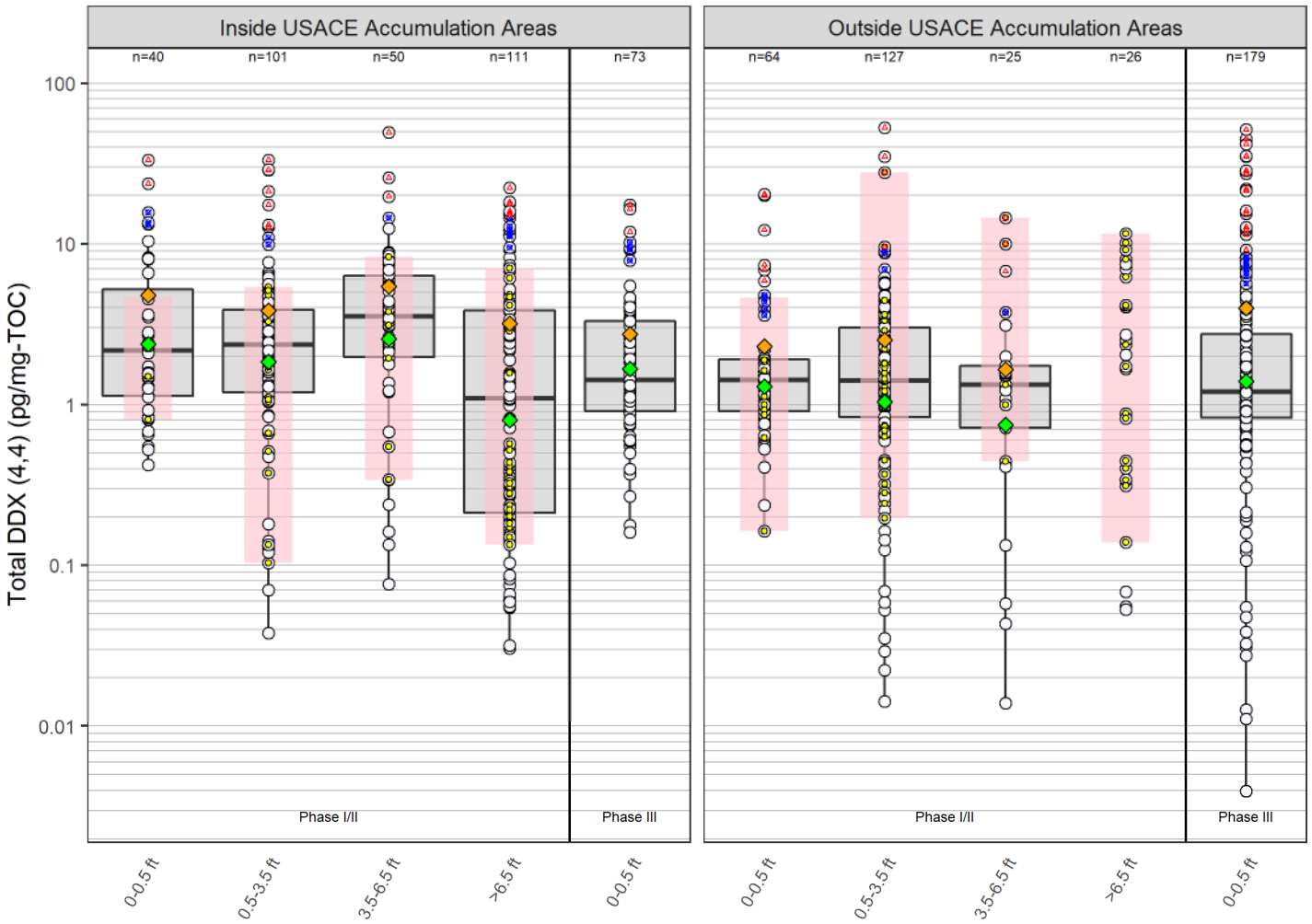
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

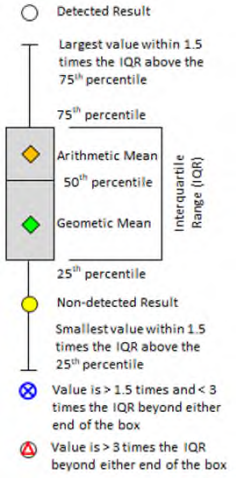
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL DDX (2,4 & 4,4)-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-184





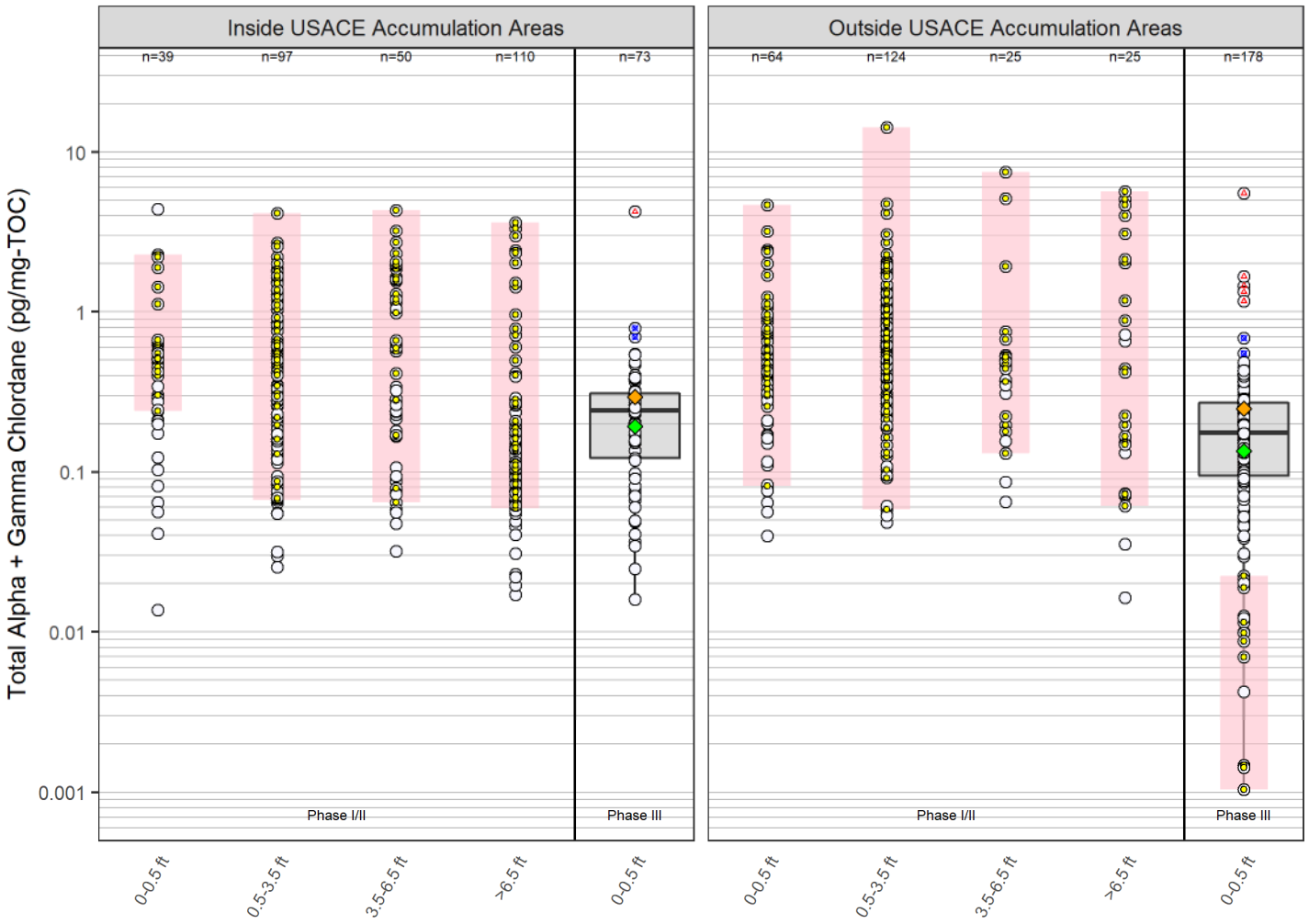
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

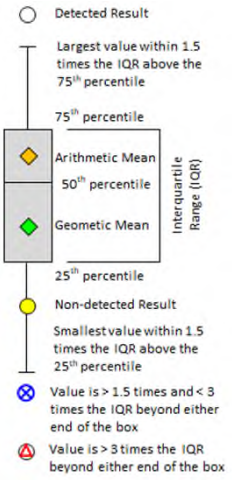
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL DDX (4,4)-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-185





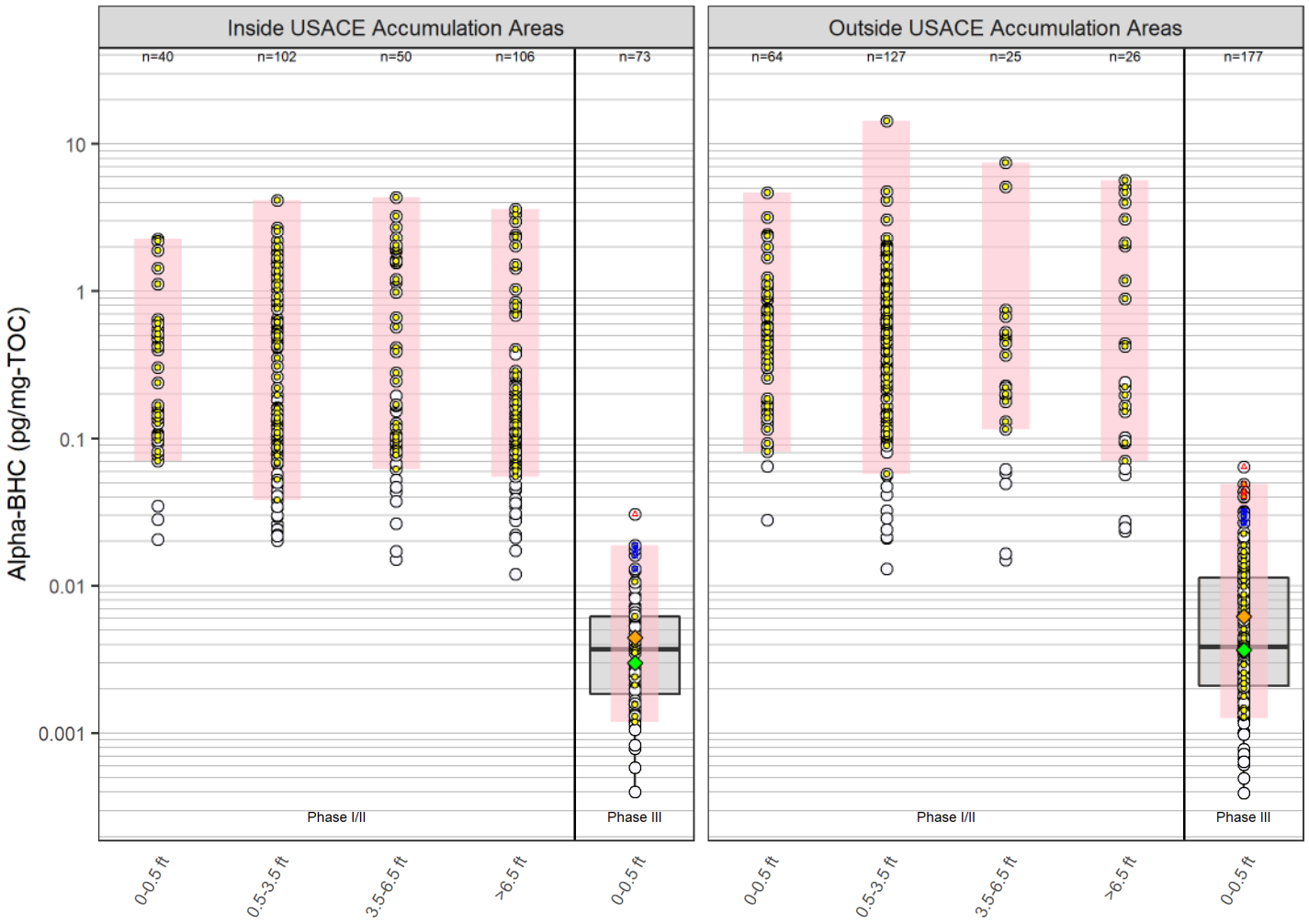
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

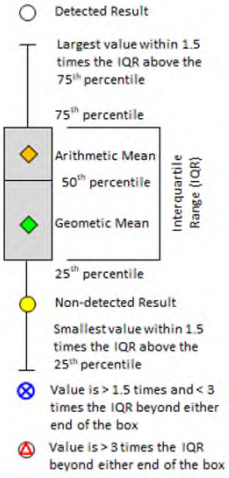
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL ALPHA + GAMMA CHLORDANE-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-186





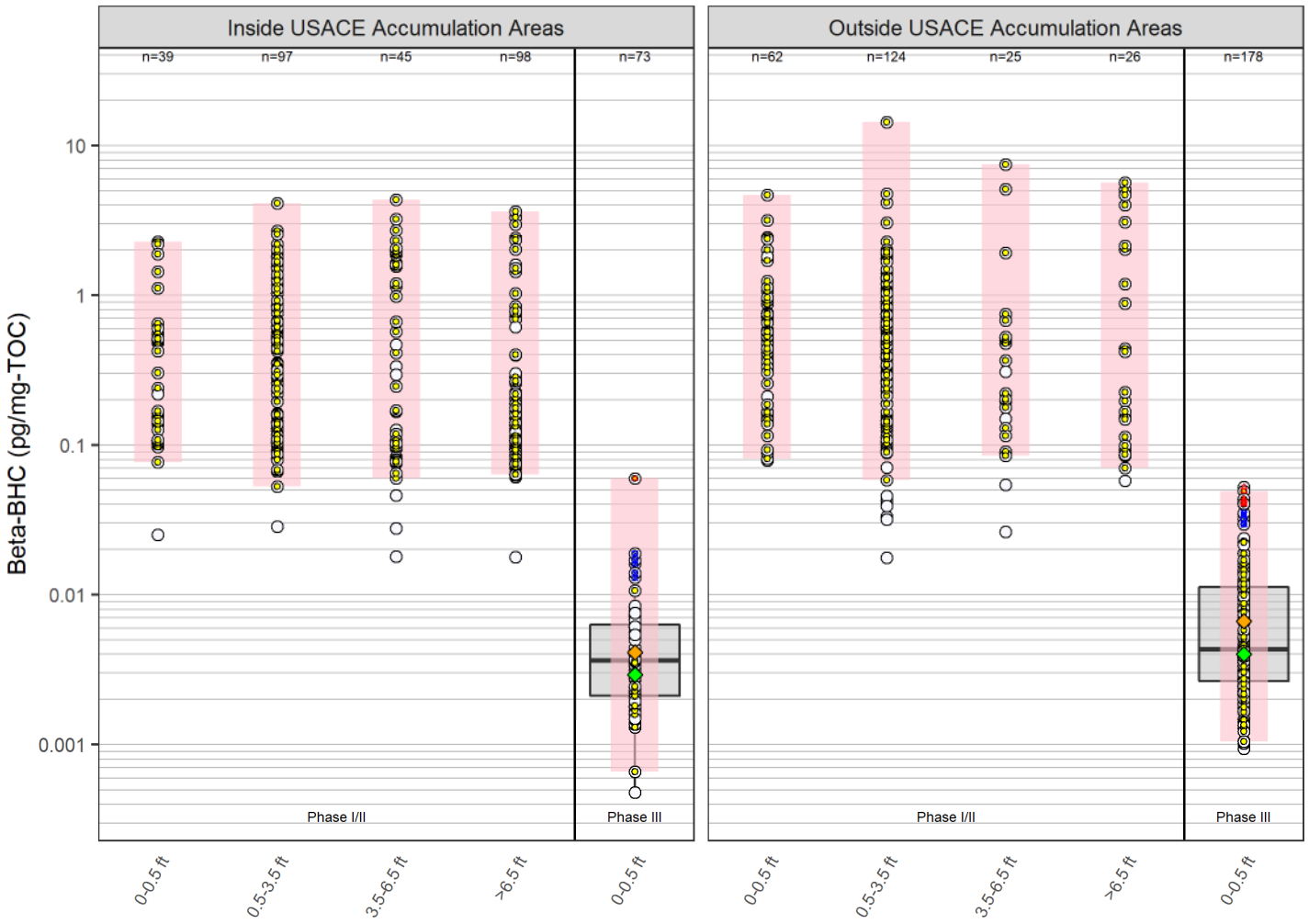
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

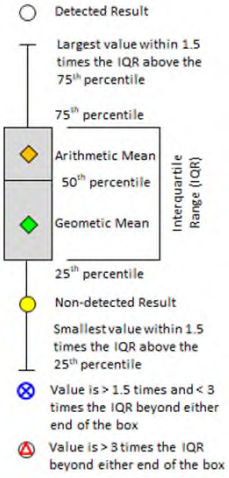
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - ALPHA-BHC-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-187





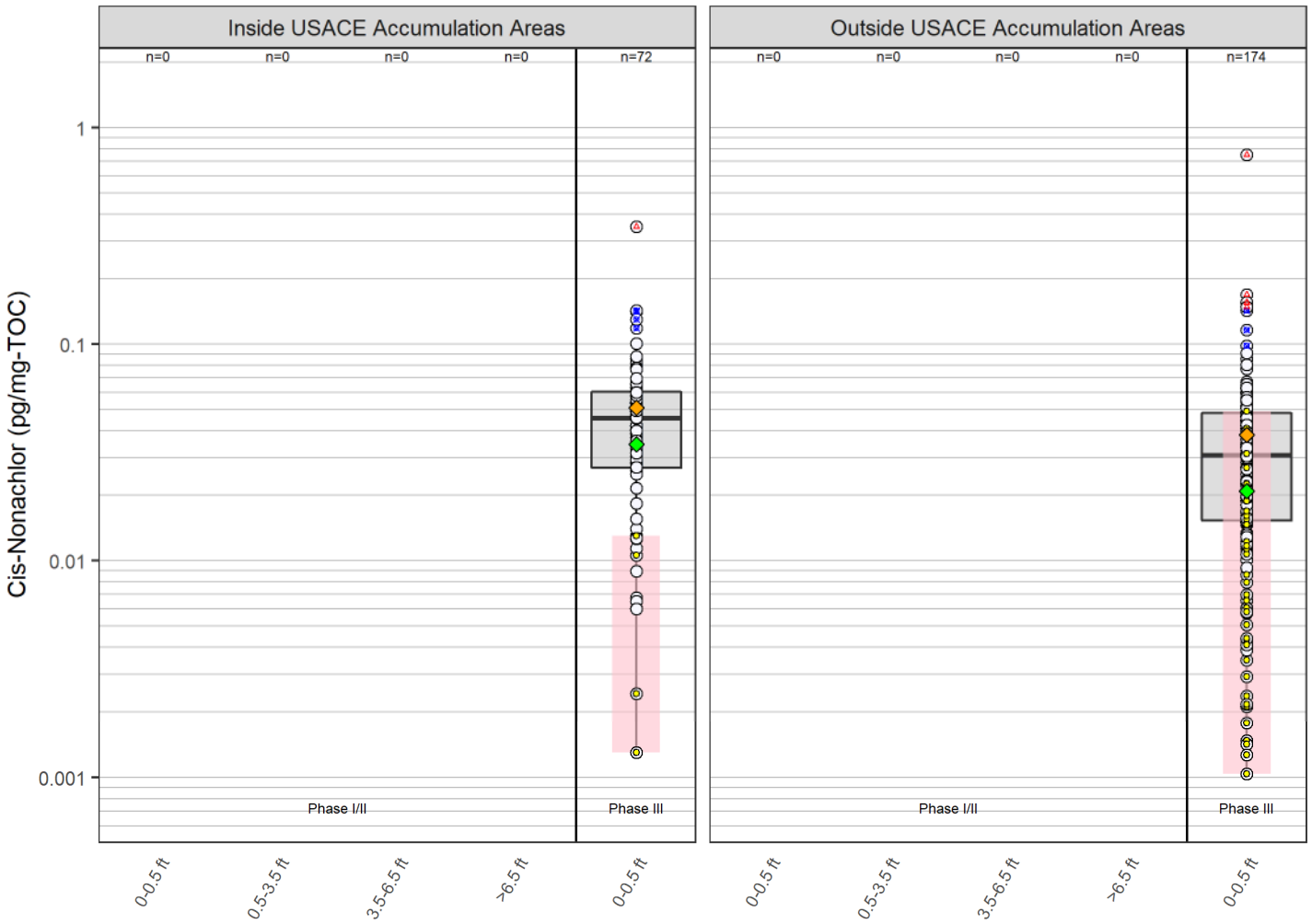
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

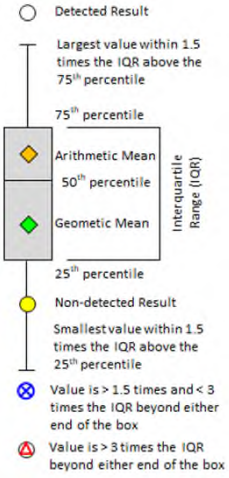
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - BETA-BHC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-188





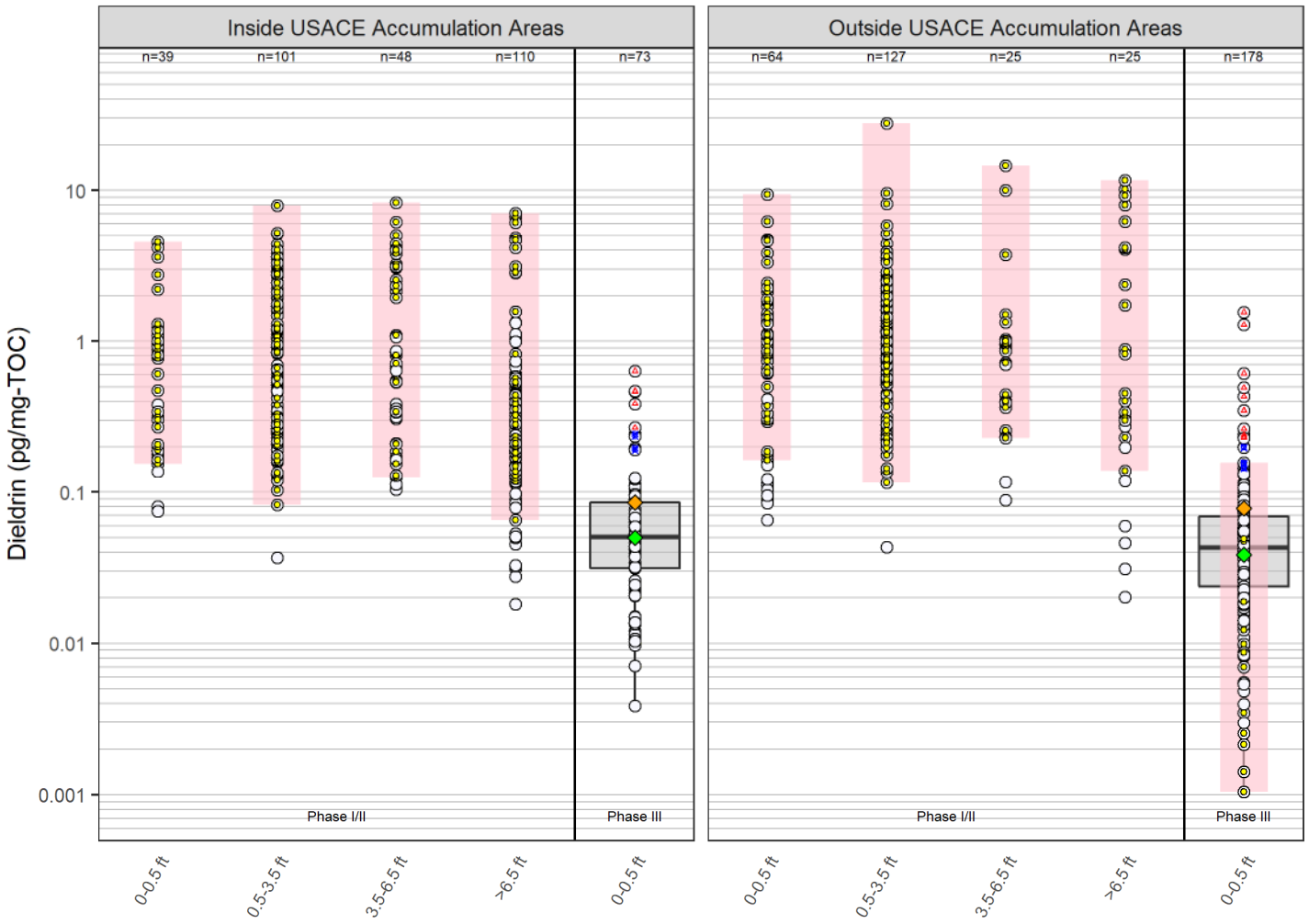
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

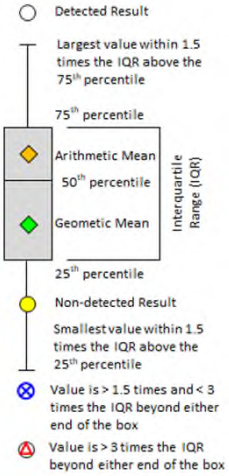
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - CIS-NONACHLOR-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-189





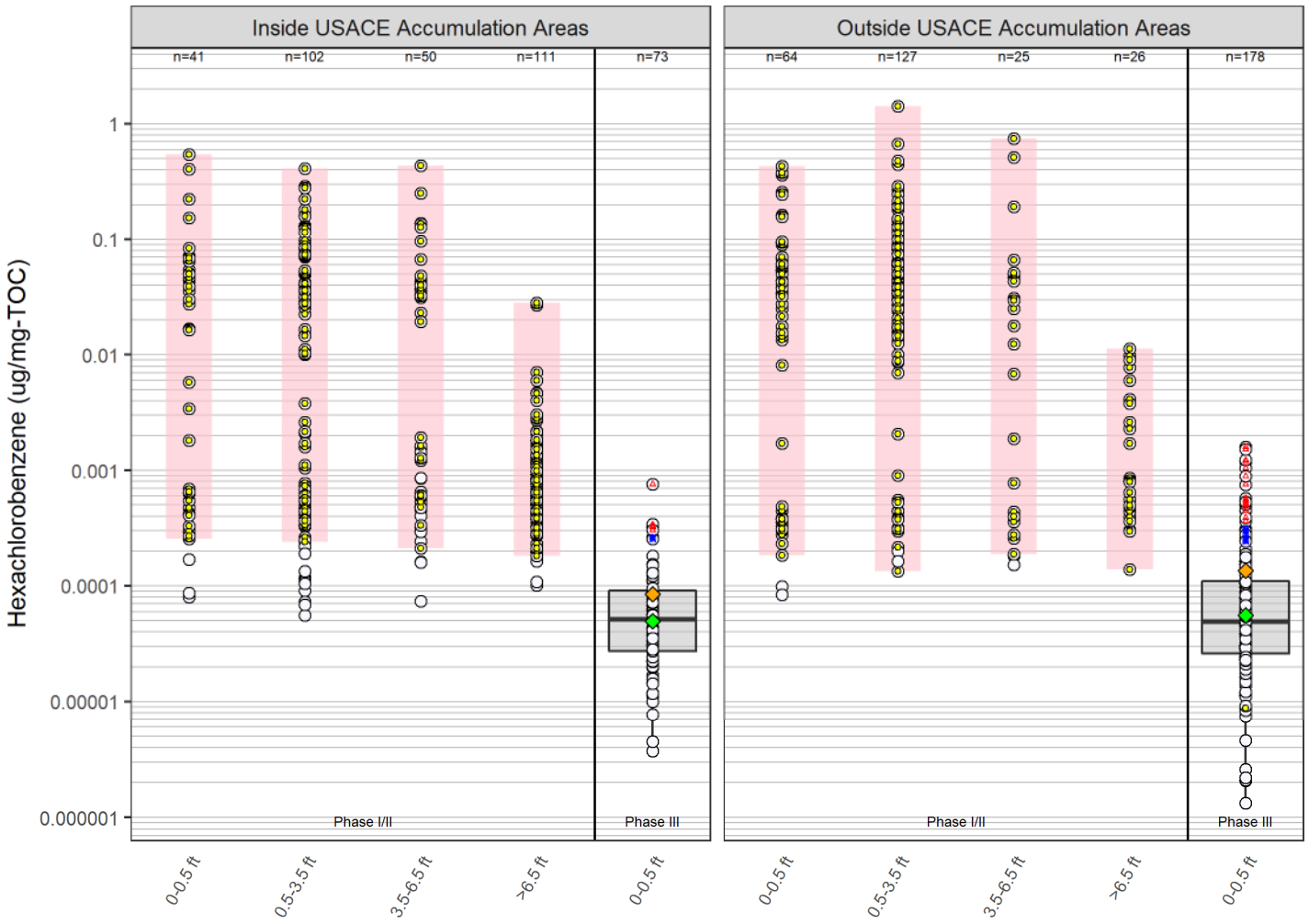
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

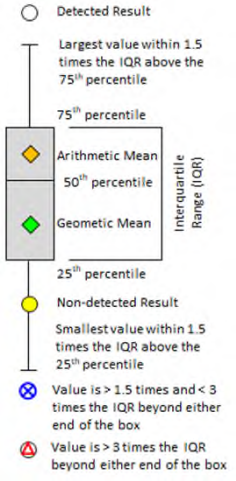
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - DIELDRIN-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-190





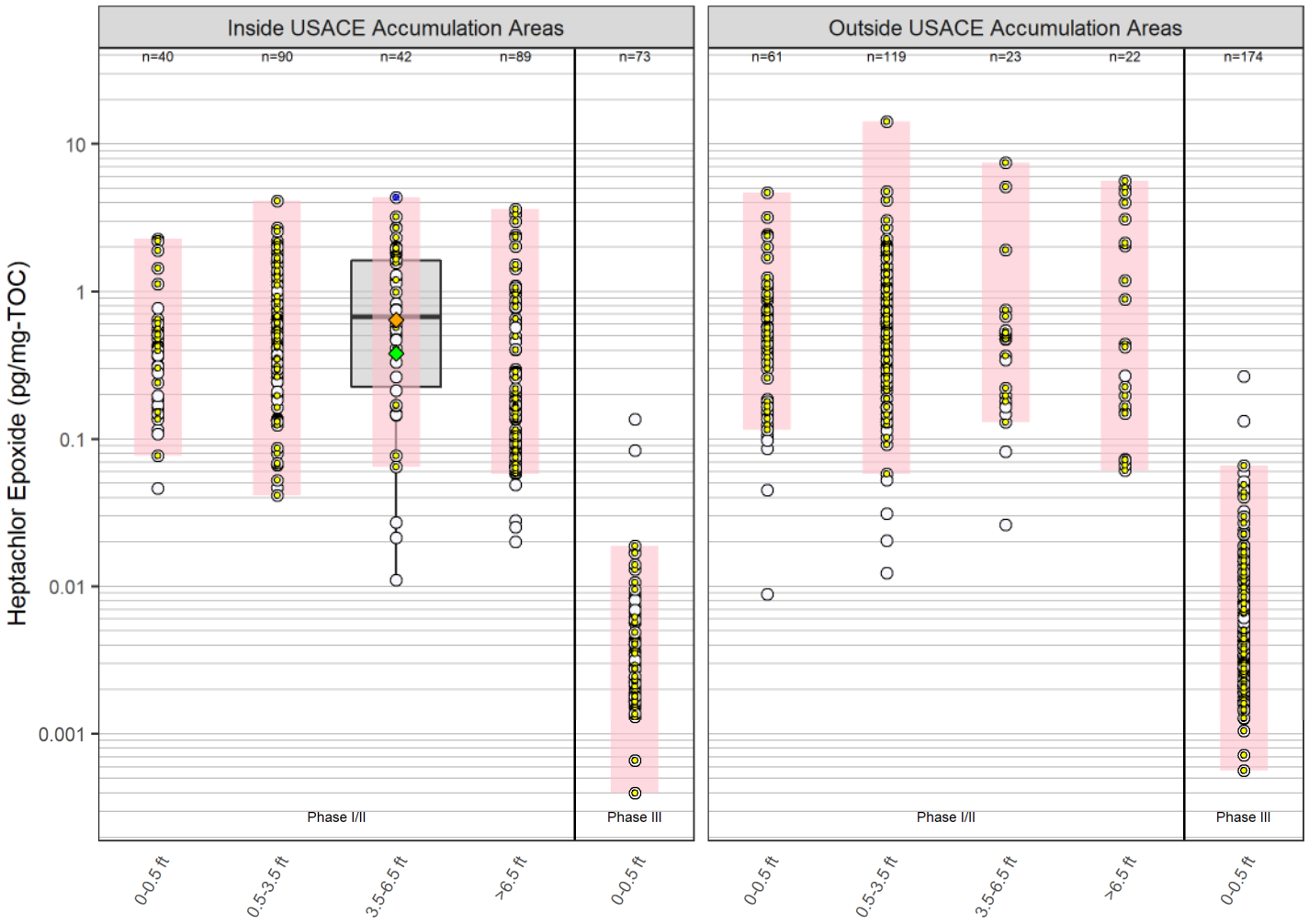
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Hexachlorobenzene was analyzed as a semi-volatile organic compound in Phase I/II and as a pesticide in Phase III. All Phase I results were non-detect.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

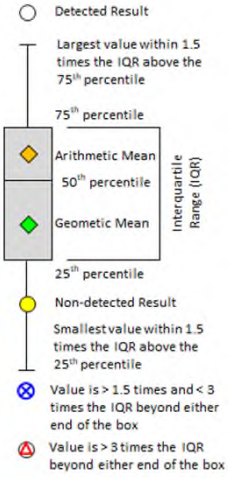
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - HEXACHLOROBENZENE-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-191





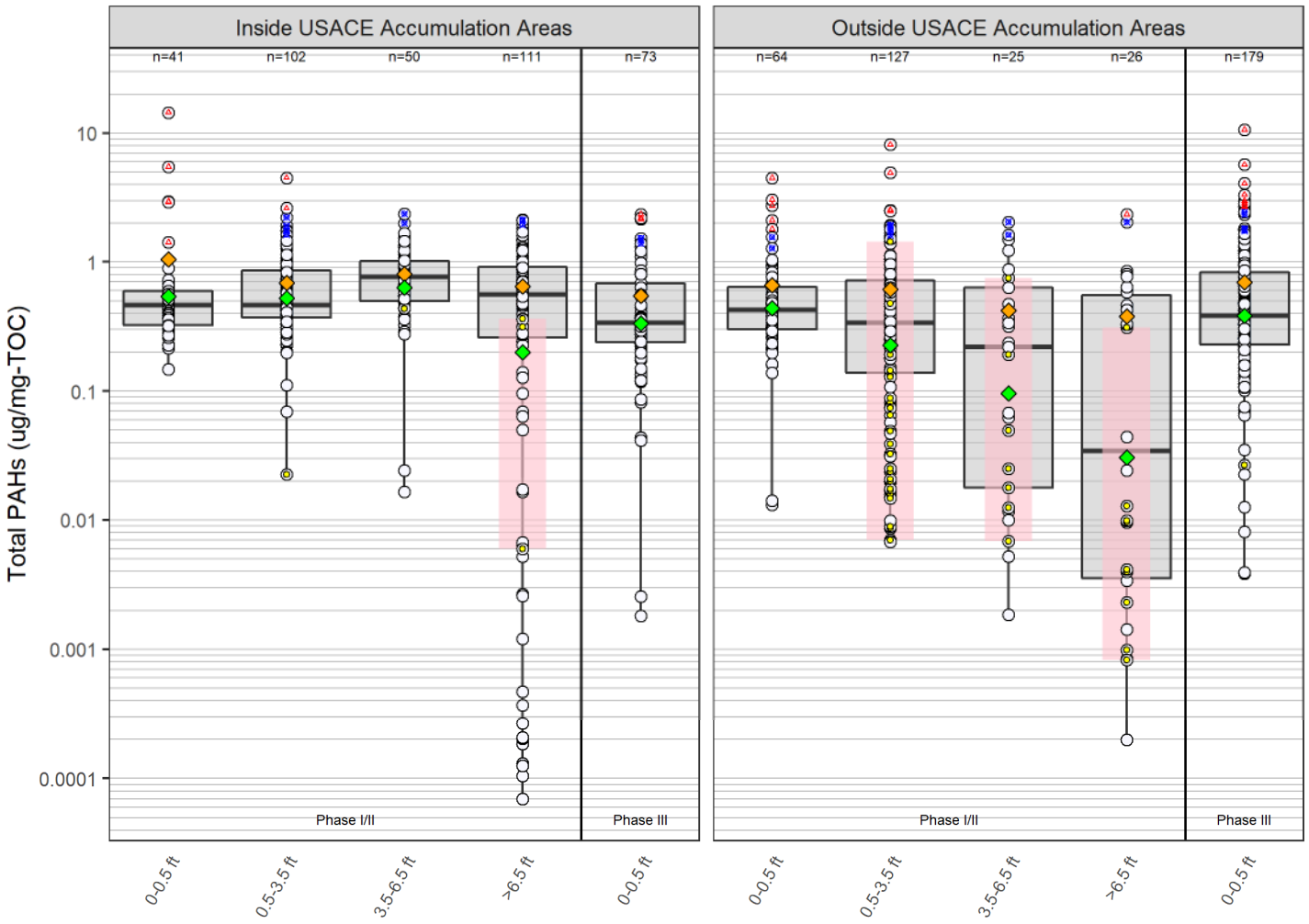
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

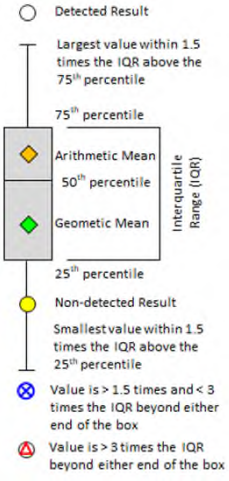
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - HEPTACHLOR EPOXIDE-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-192





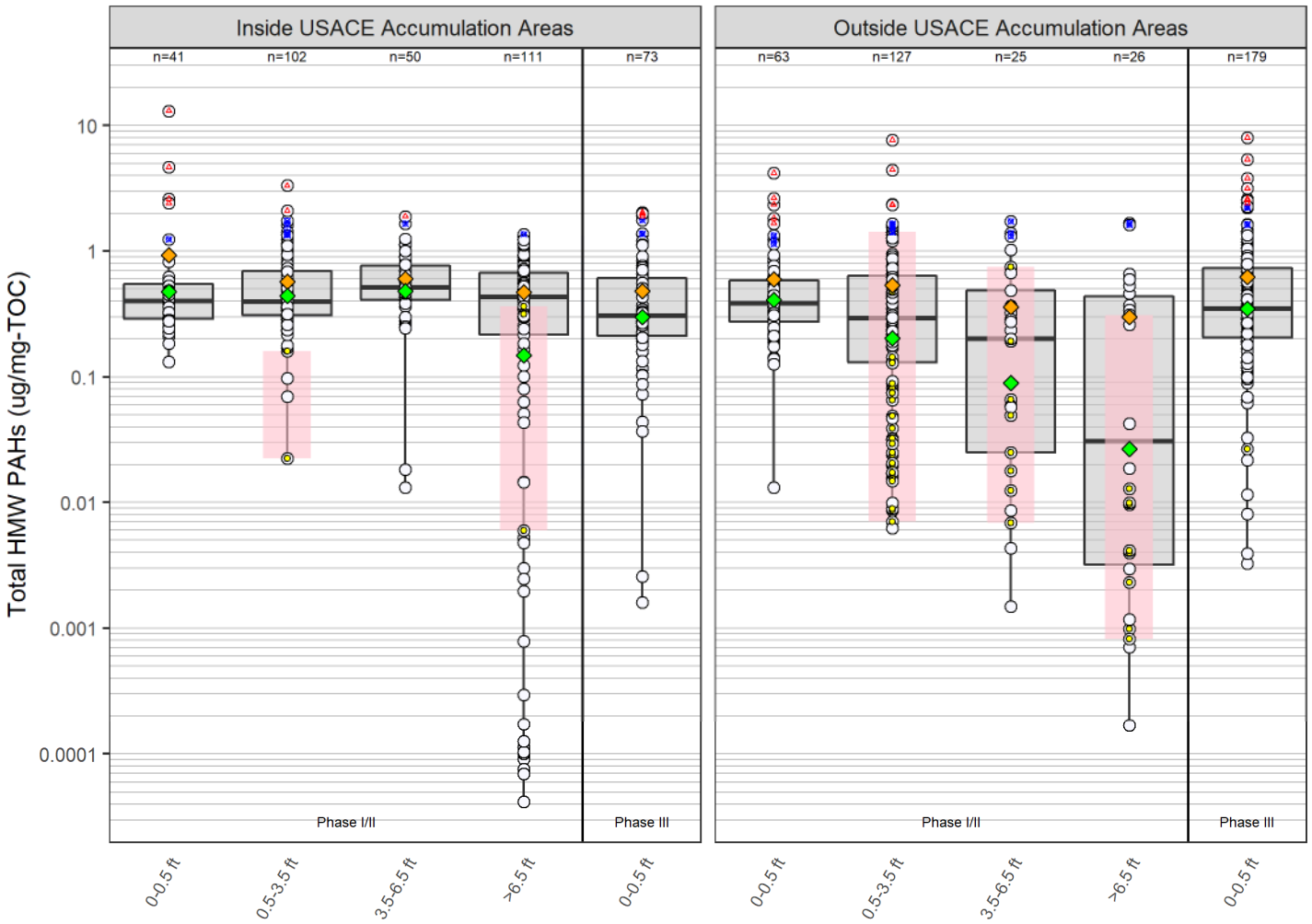
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

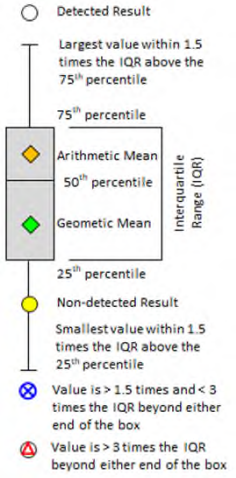
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-193





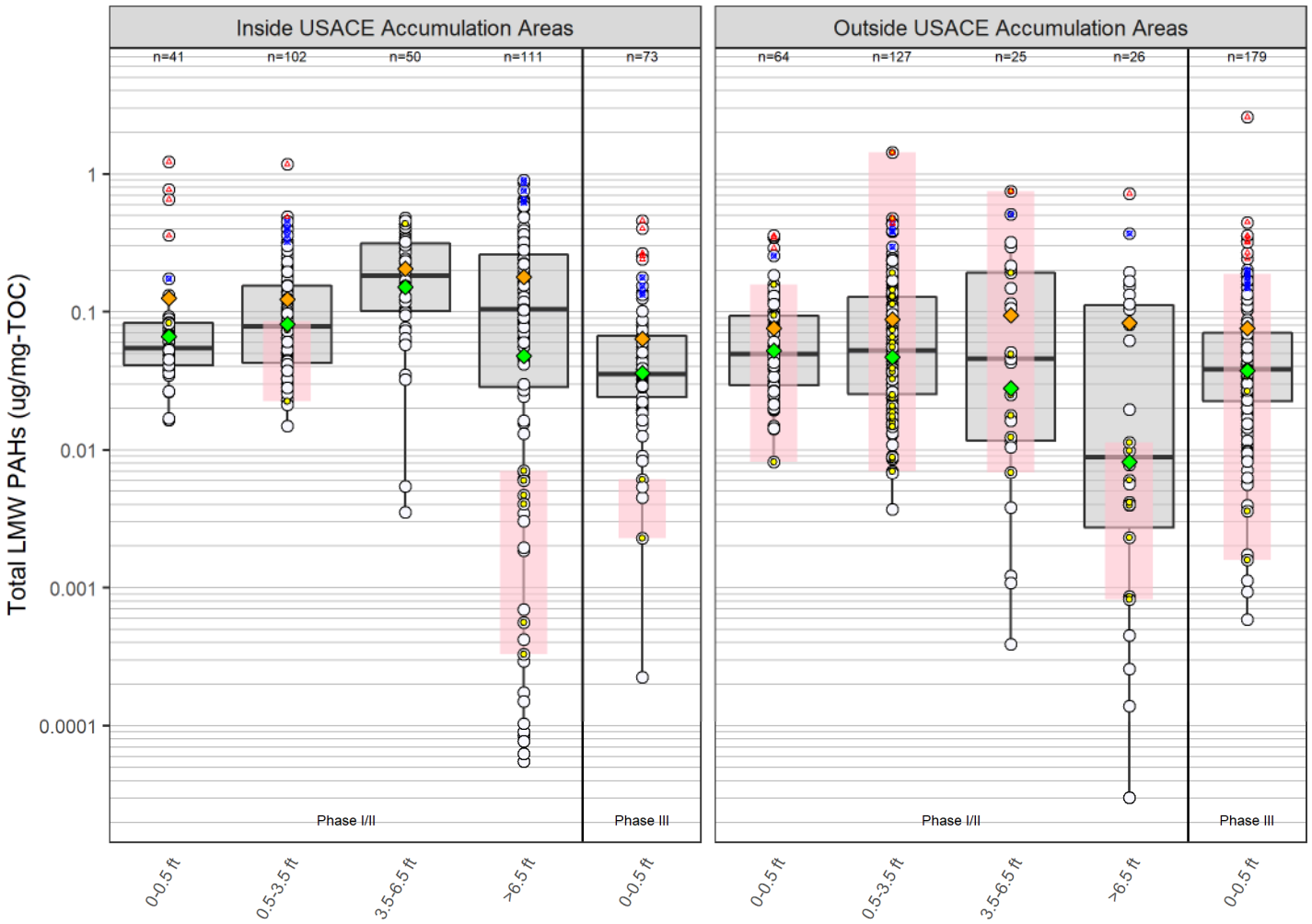
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

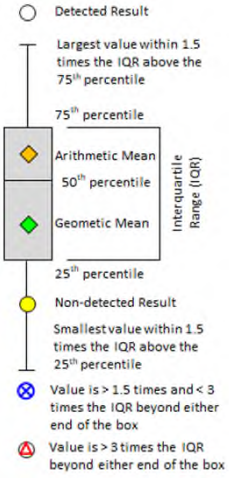
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL HMW PAHS-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-194





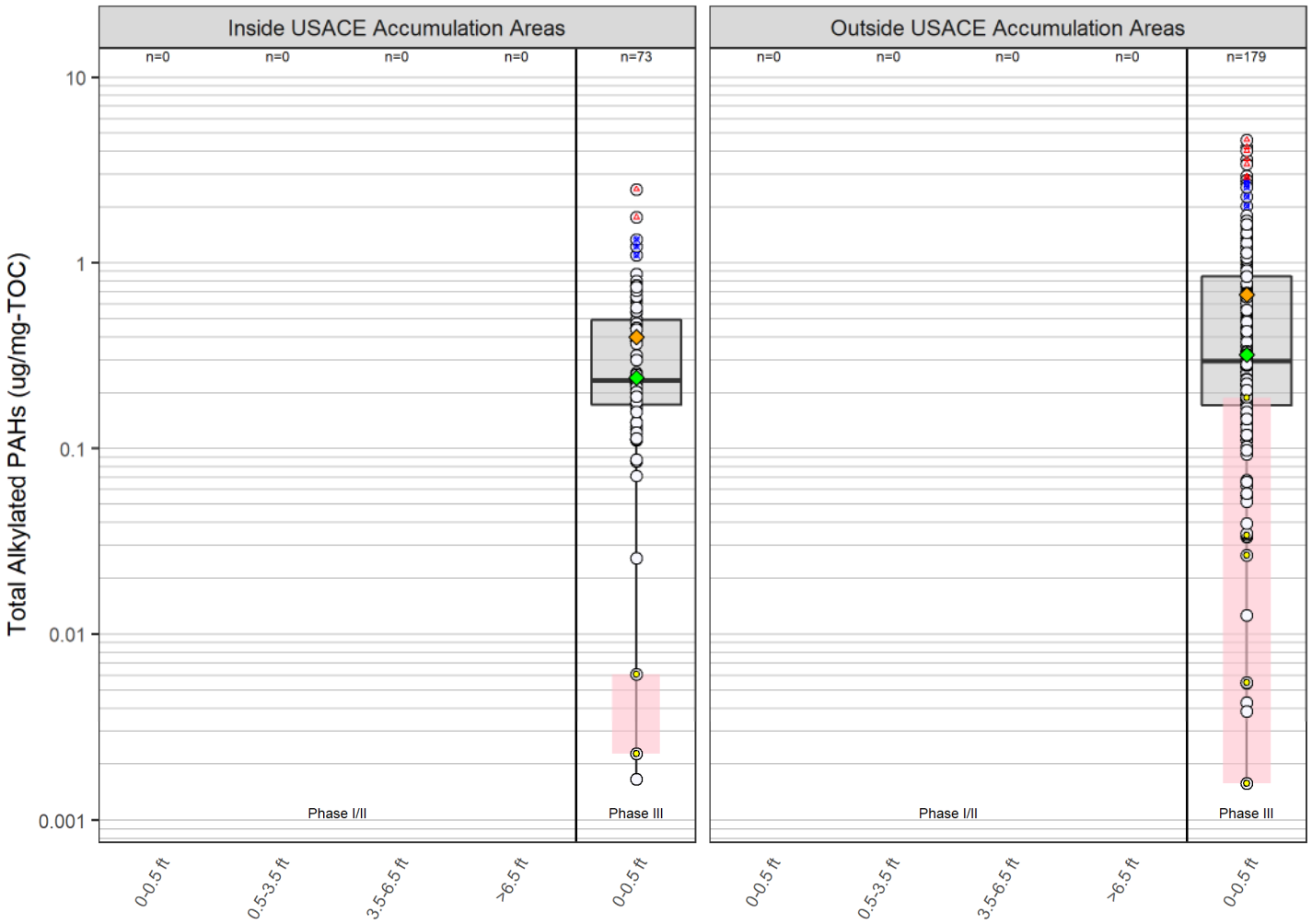
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

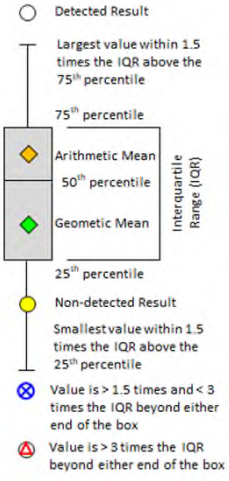
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL LMW PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-195





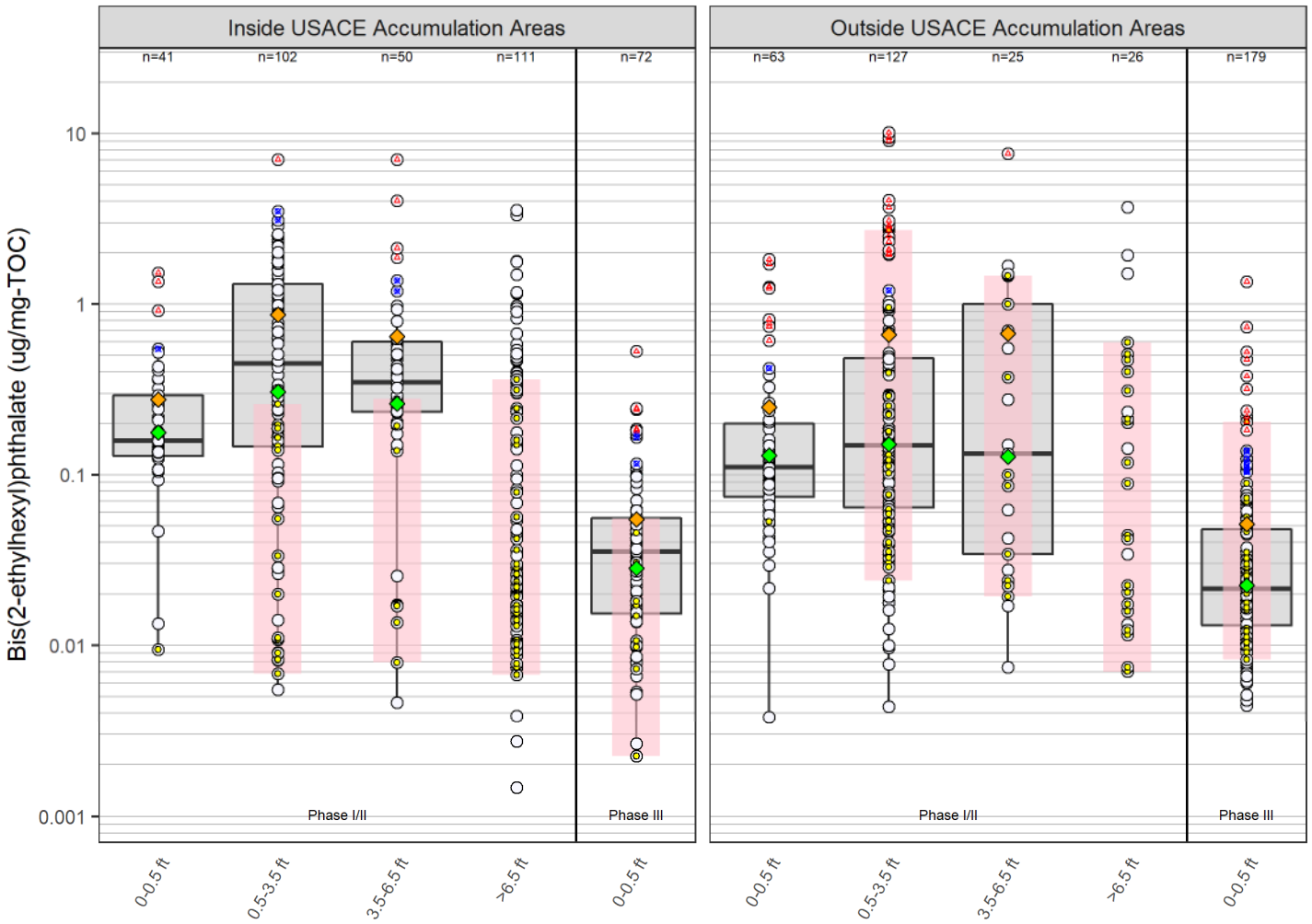
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Alkylated PAHs were not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

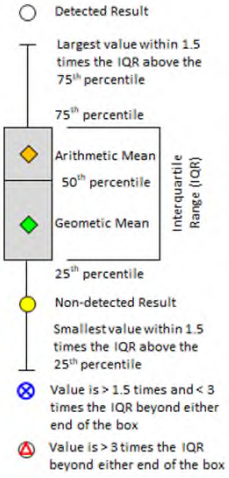
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TOTAL ALKYLATED PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-196





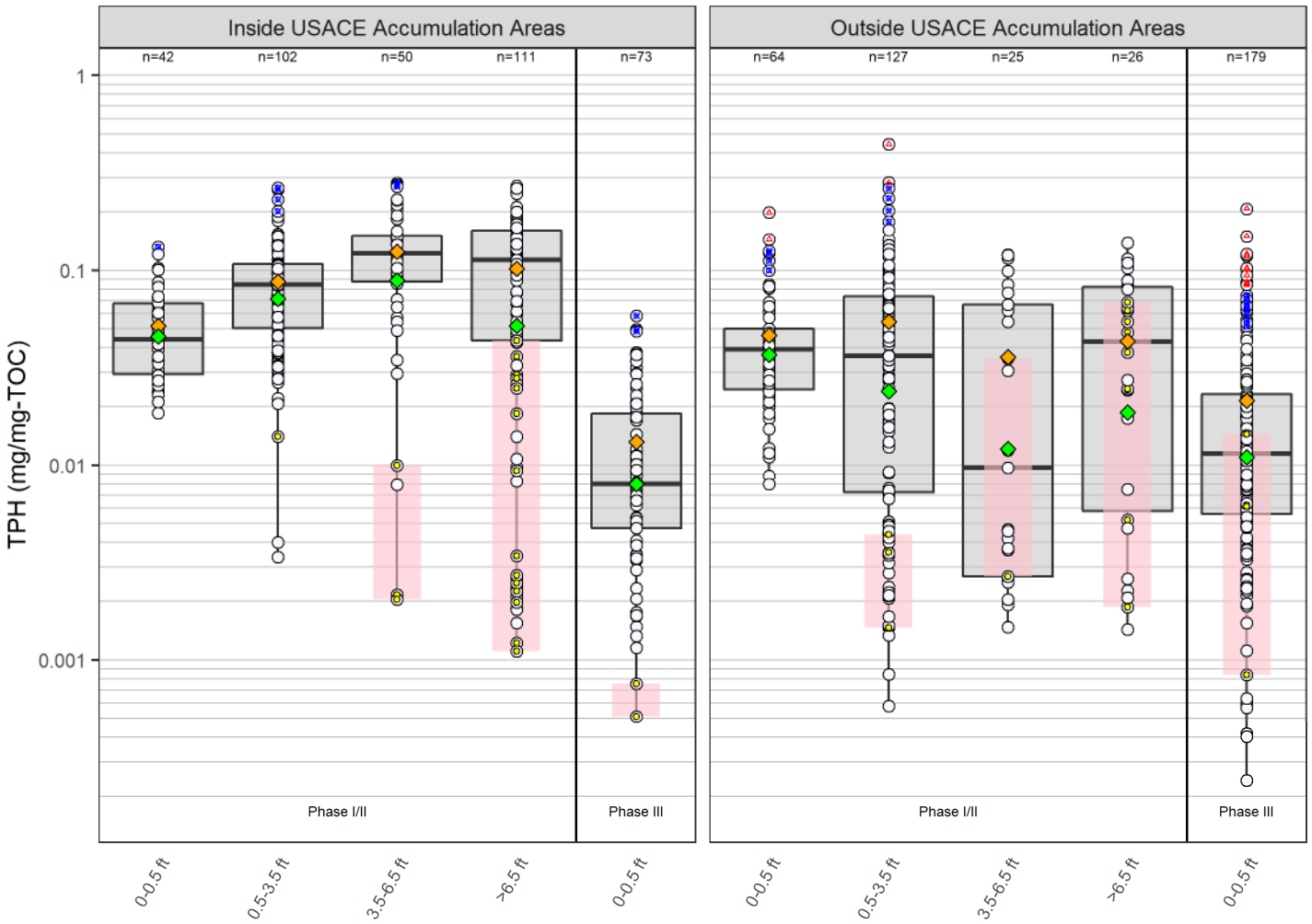
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

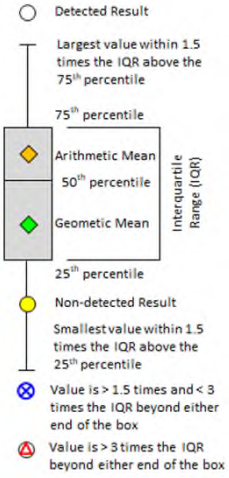
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - BIS(2-ETHYLHEXYL)PHTHALATE-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-197





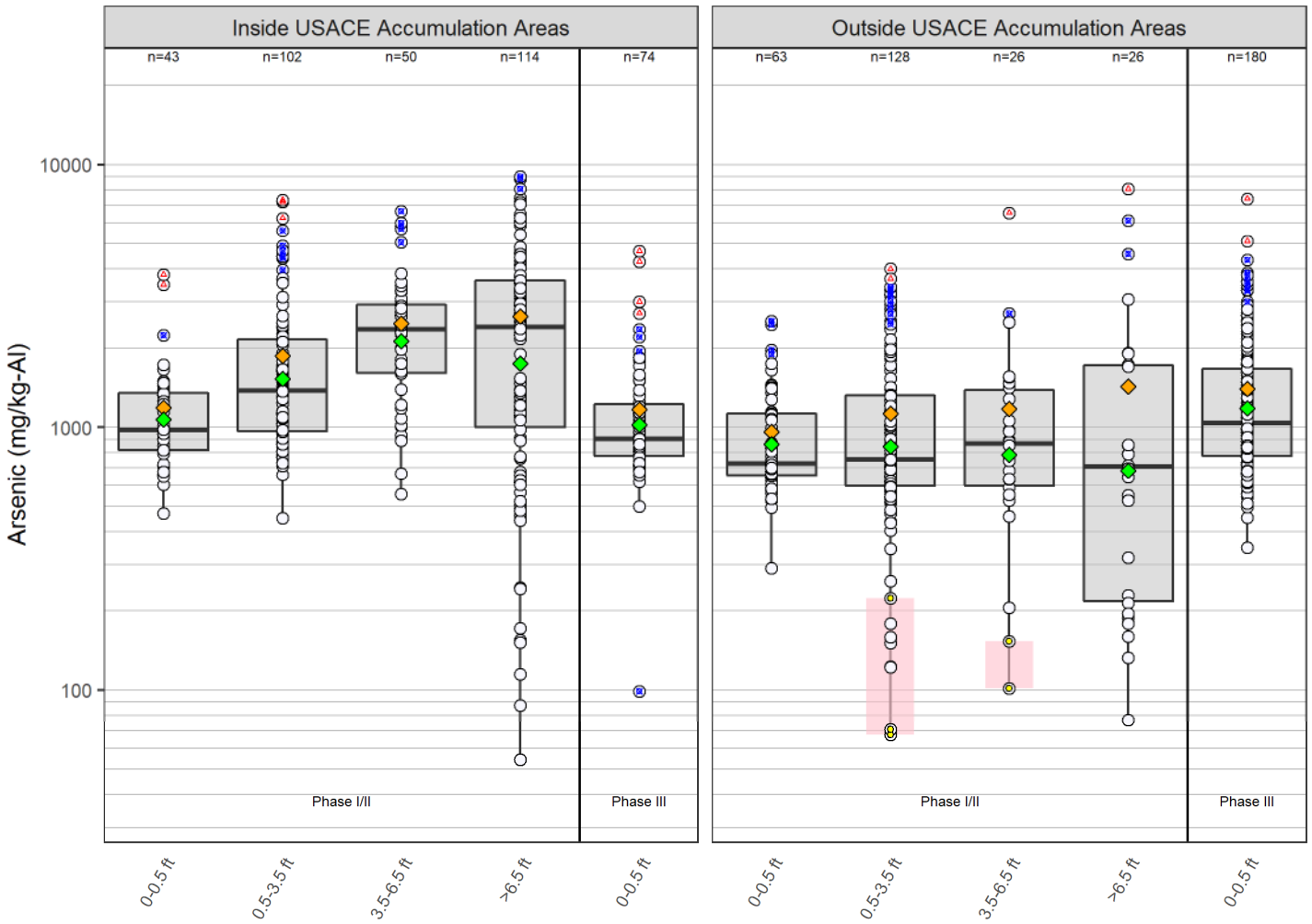
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.
The Phase I/II TPH data represent total extractable petroleum hydrocarbons (TEPH) whereas Phase III TPH data represent C9-C40 hydrocarbons.

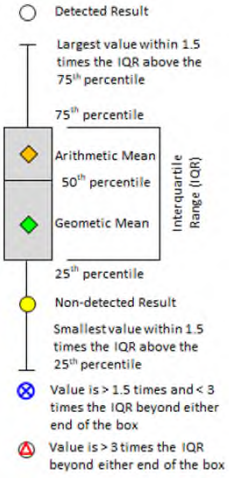
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - TPH-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-198





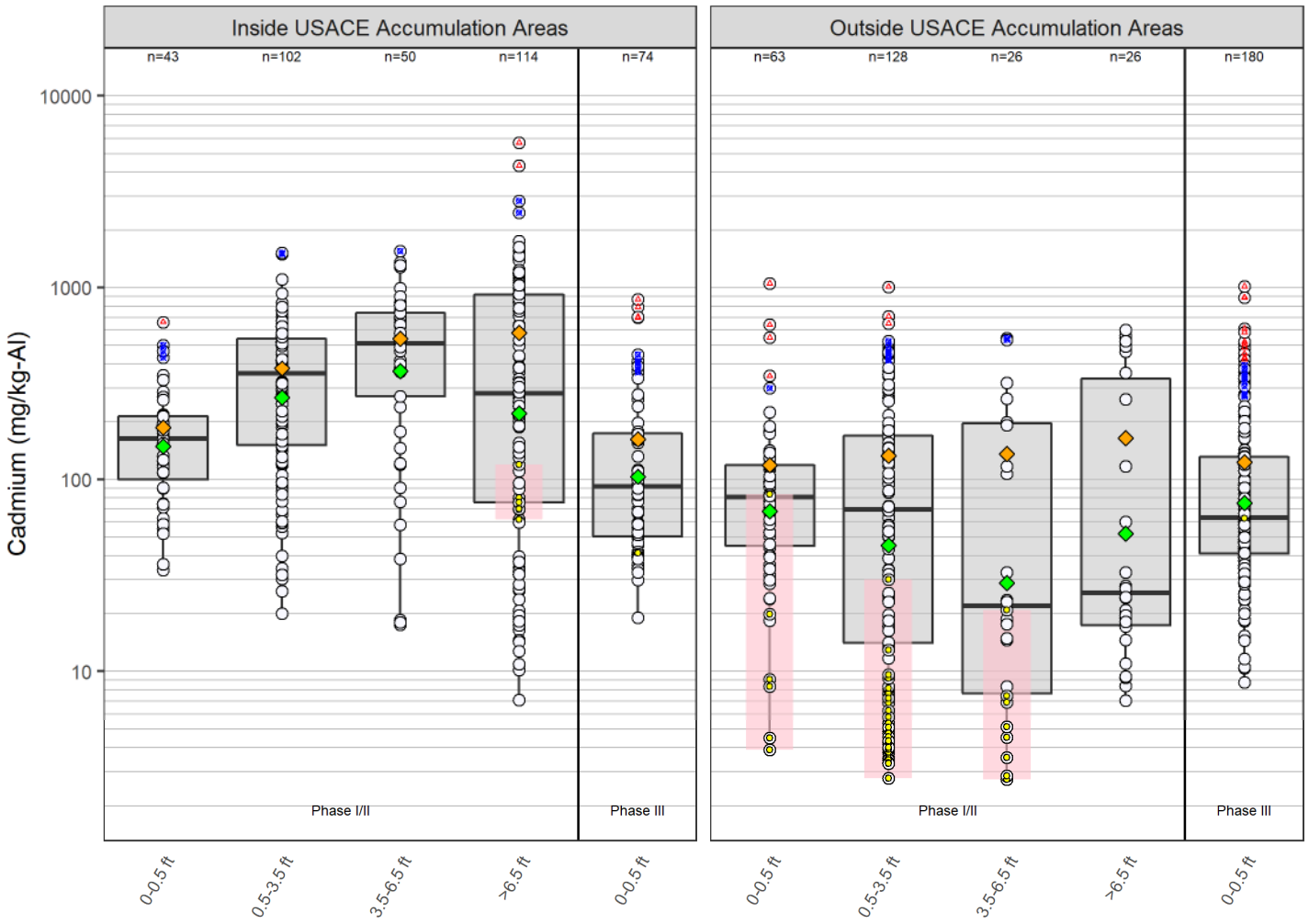
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

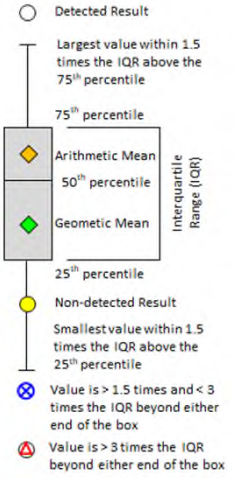
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - ARSENIC-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-199





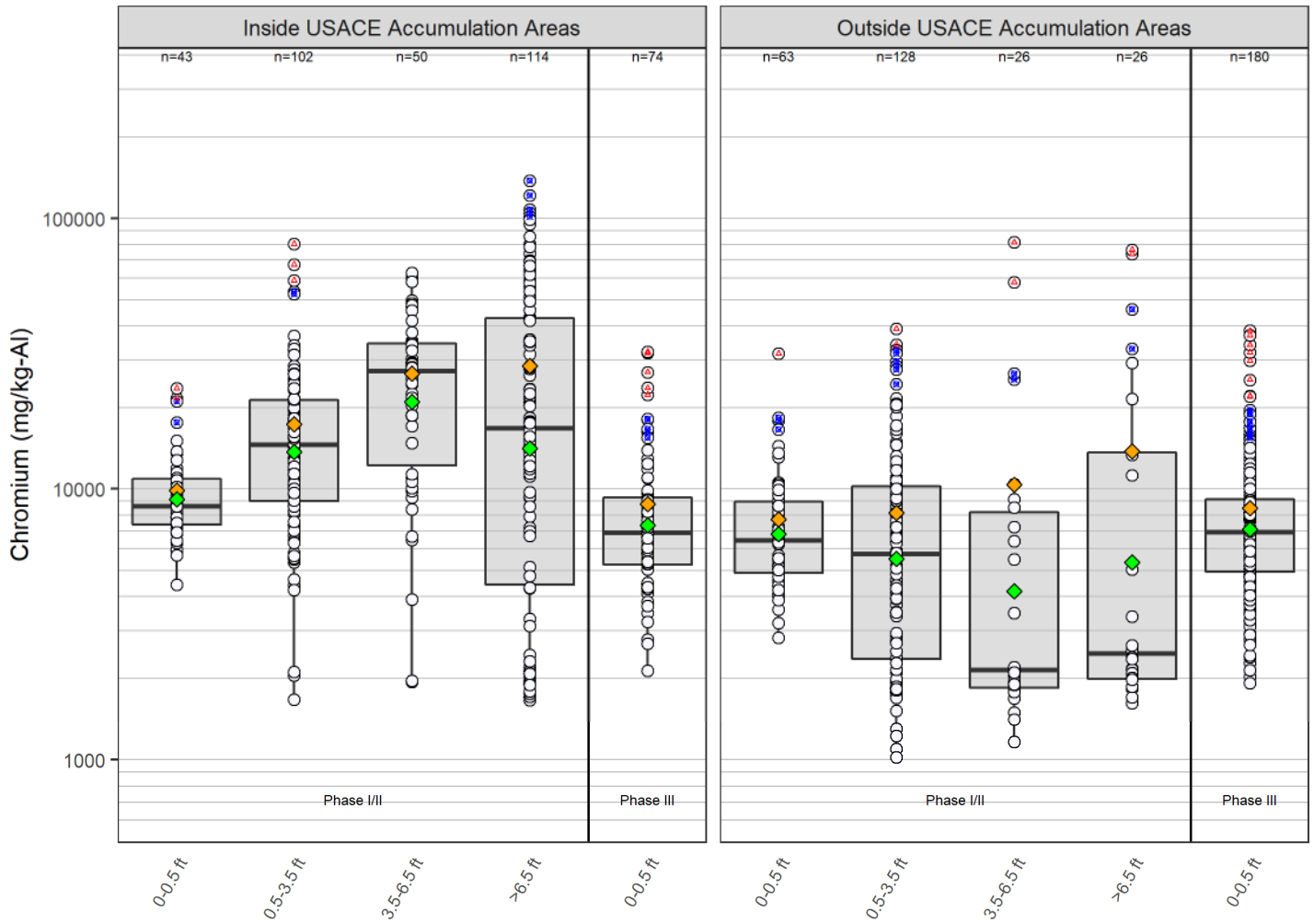
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

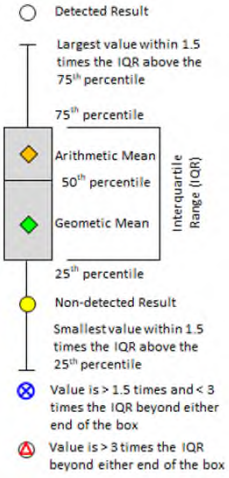
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - CADMIUM-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-200





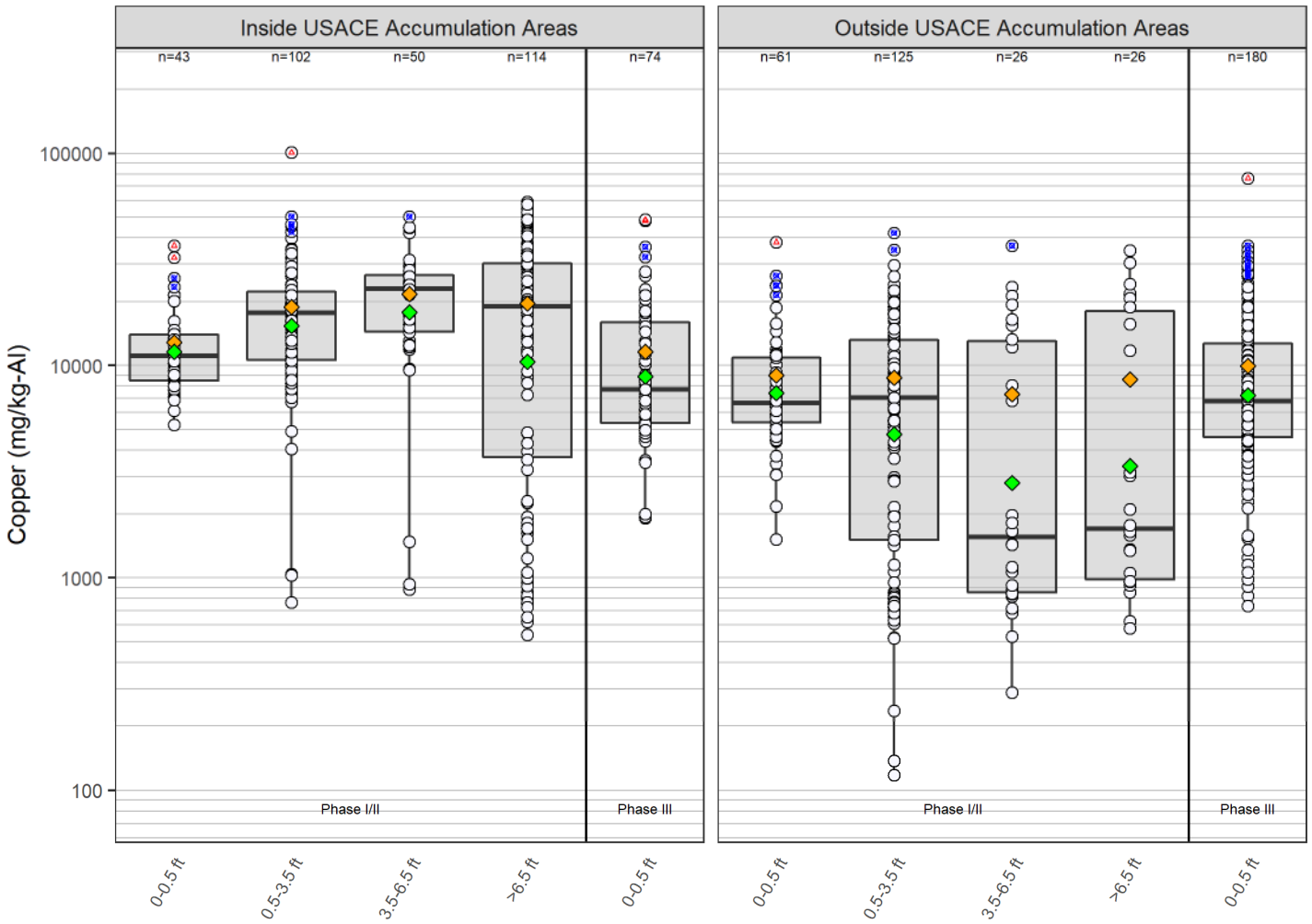
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

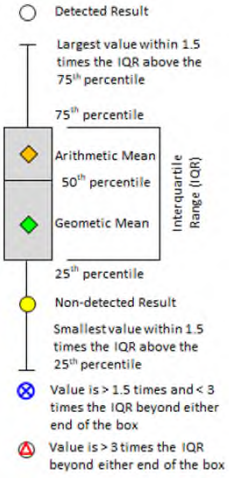
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - CHROMIUM-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-201





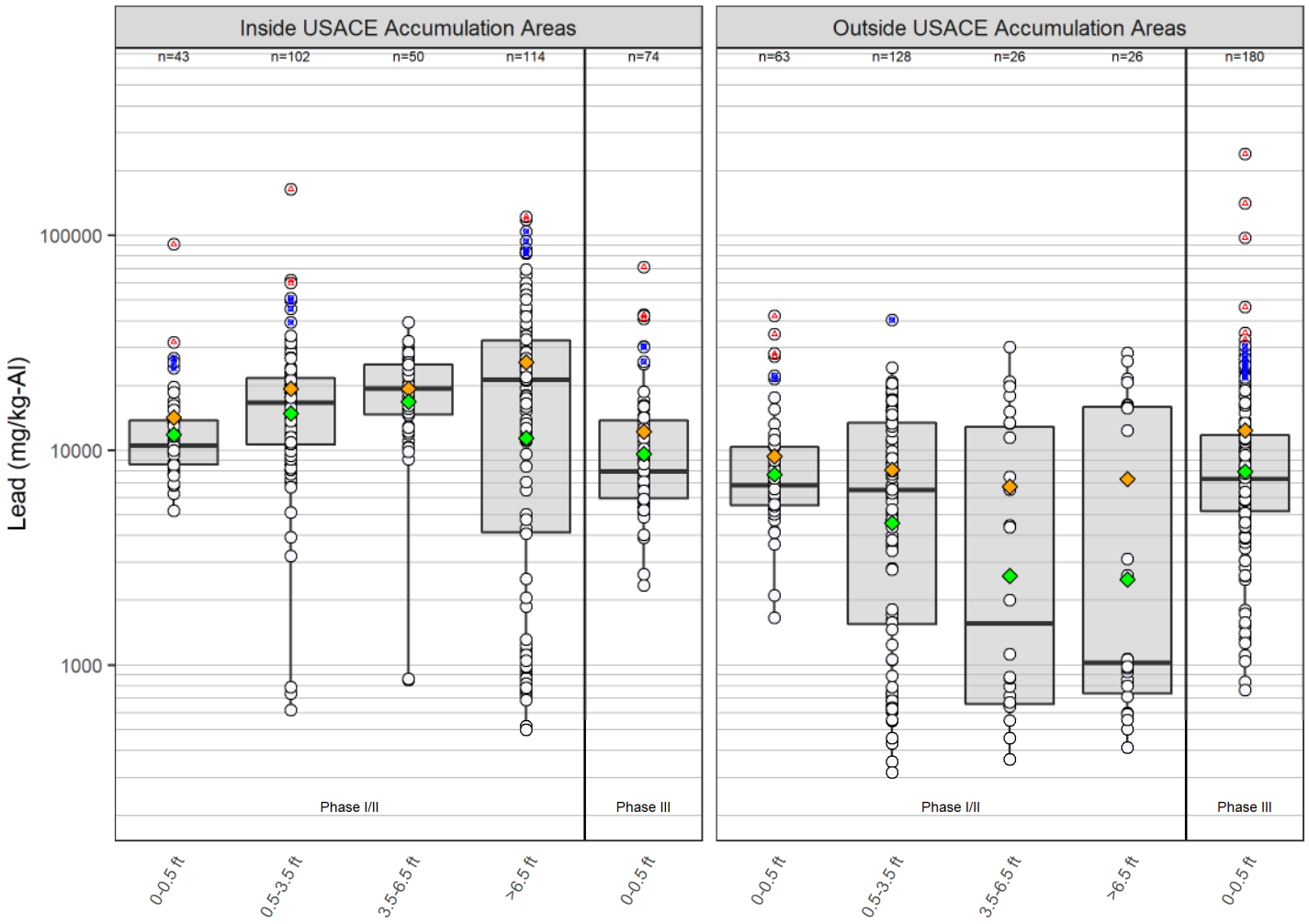
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

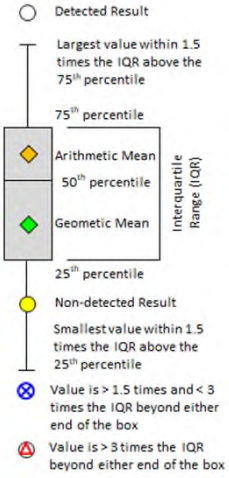
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - COPPER-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-202





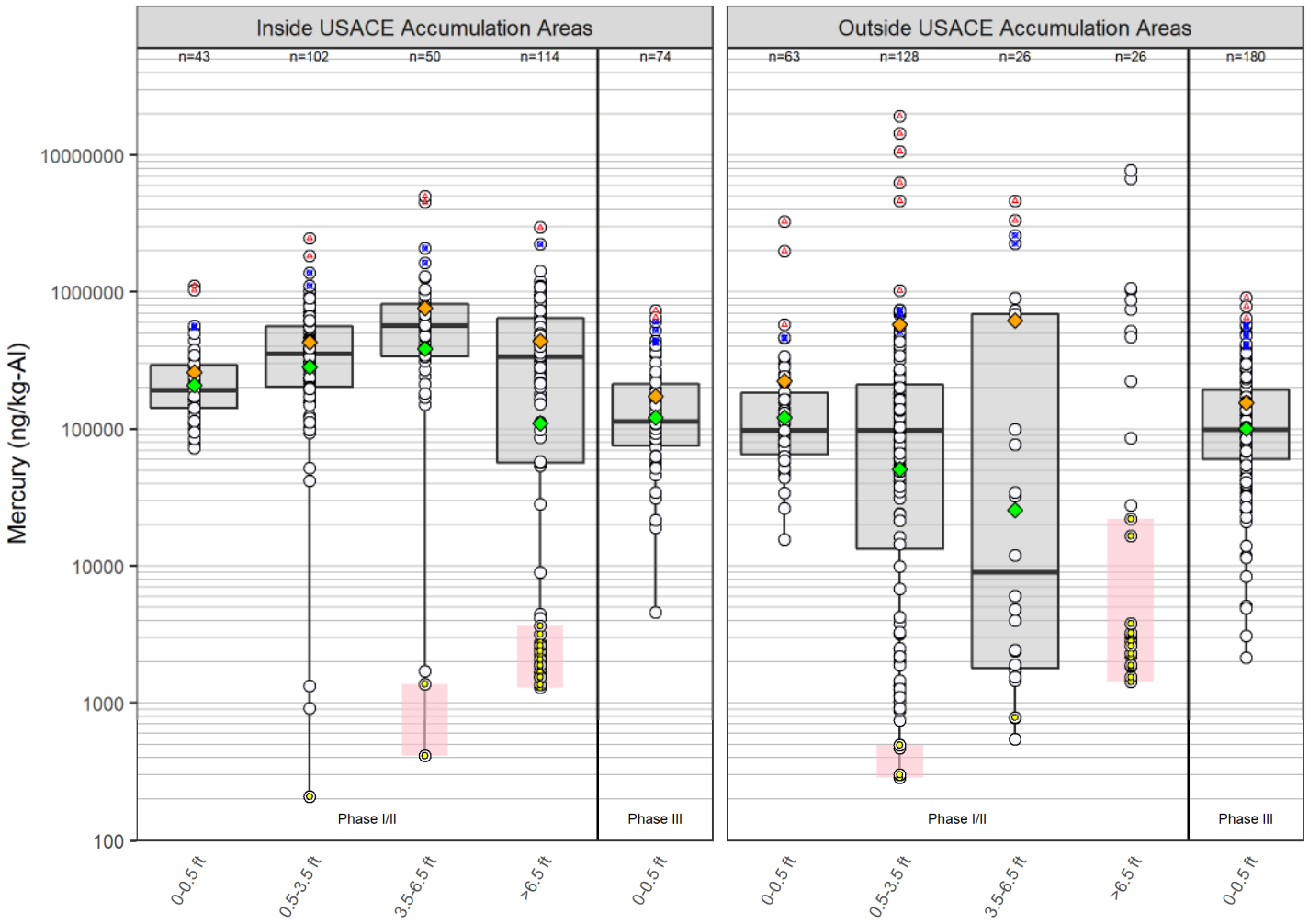
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

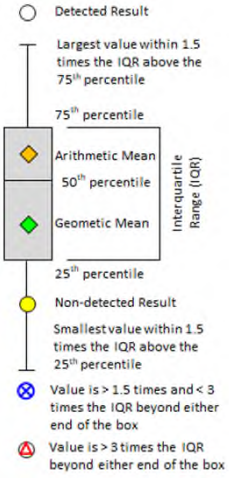
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REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - LEAD-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-203





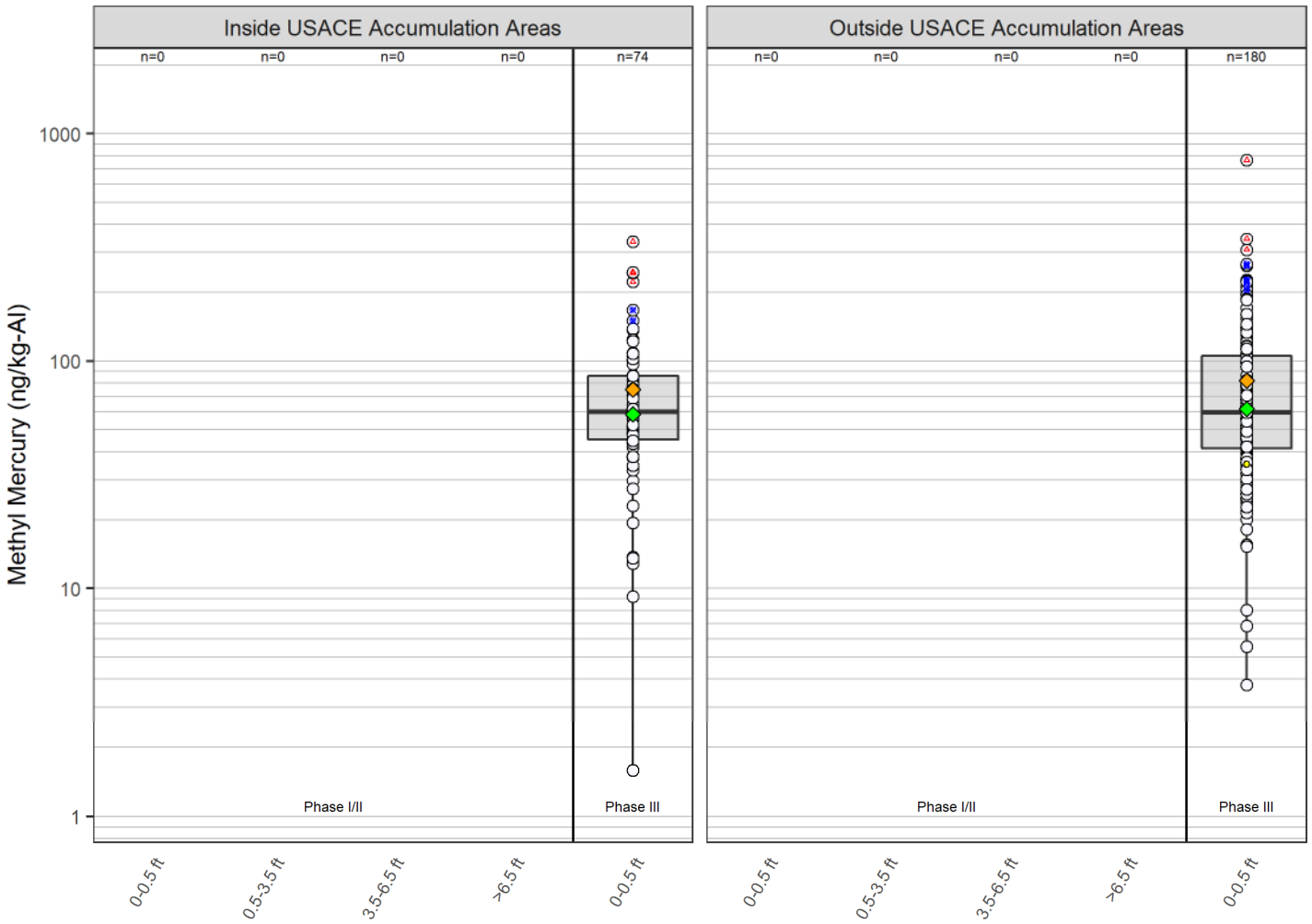
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

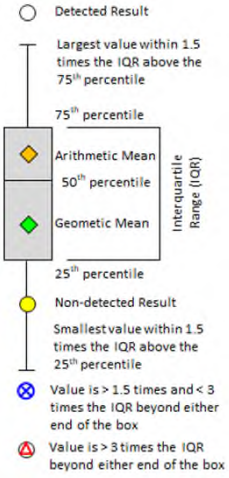
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - MERCURY-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-204





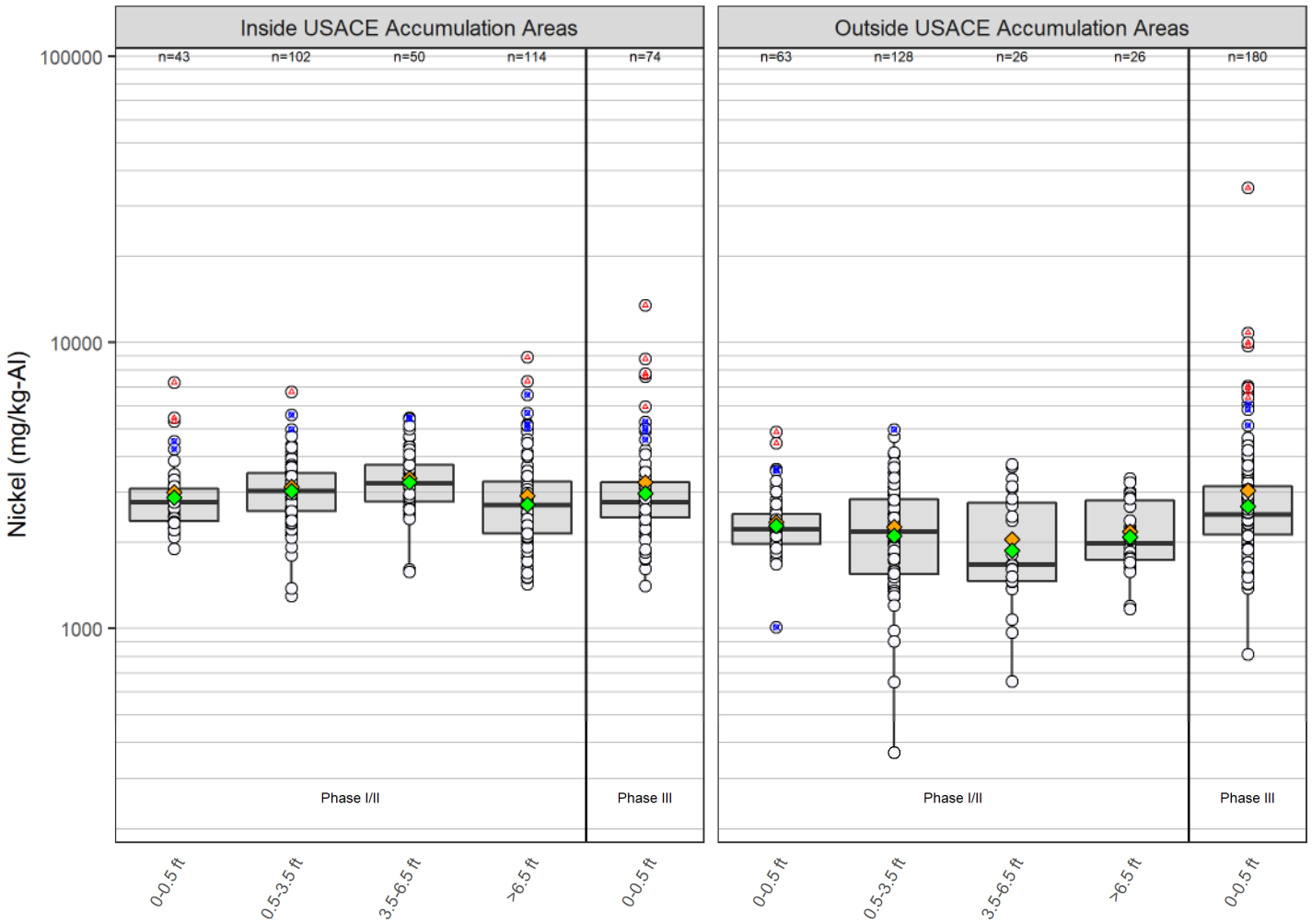
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
Methyl mercury was not measured in Phase I/II.
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

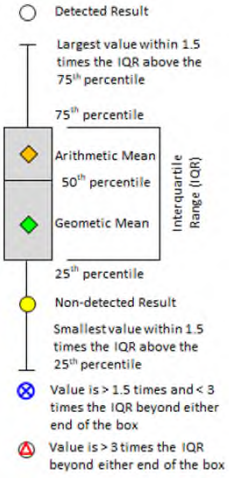
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - METHYL MERCURY-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-205





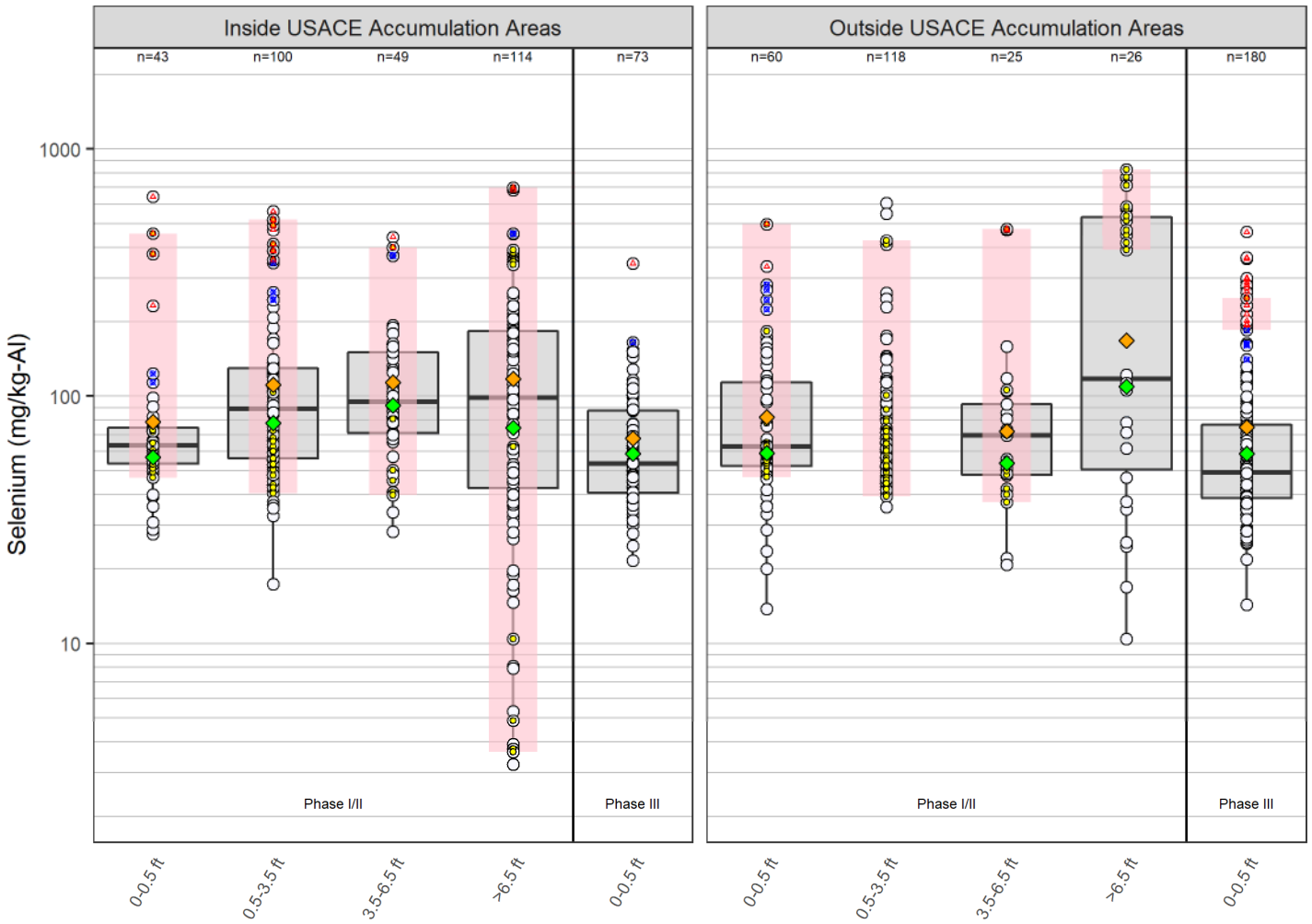
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

DIAMOND ALKALI SUPERFUND SITE
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REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - NICKEL-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-206



Detected Result

Largest value within 1.5 times the IQR above the 75th percentile

75th percentile

Arithmetic Mean

50th percentile

Geometic Mean

Interquartile Range (IQR)

25th percentile

Non-detected Result

Smallest value within 1.5 times the IQR above the 25th percentile

Value is > 1.5 times and < 3 times the IQR beyond either end of the box

Value is > 3 times the IQR beyond either end of the box

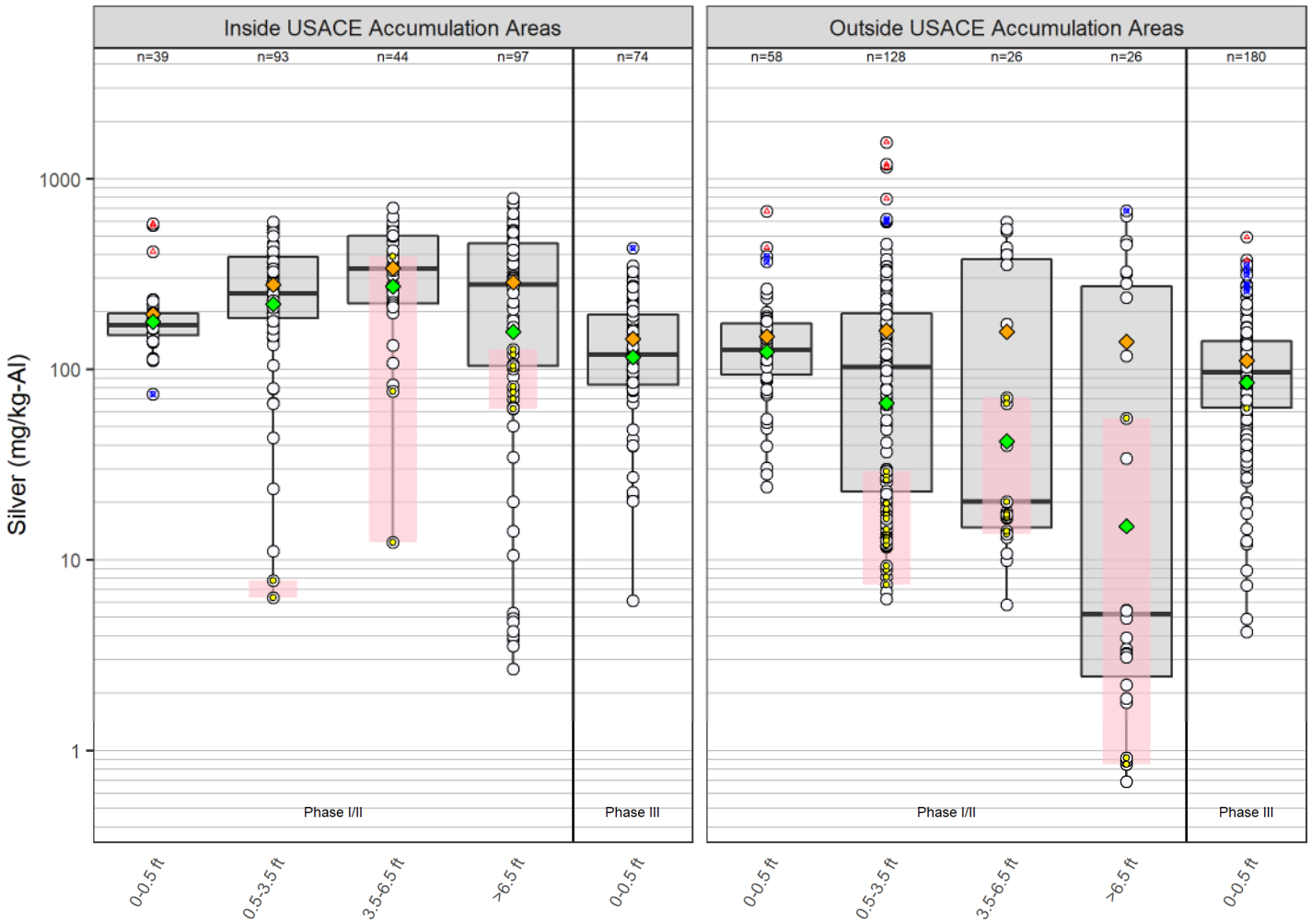
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
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Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

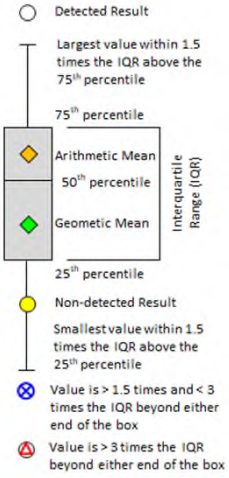
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - SELENIUM-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-207





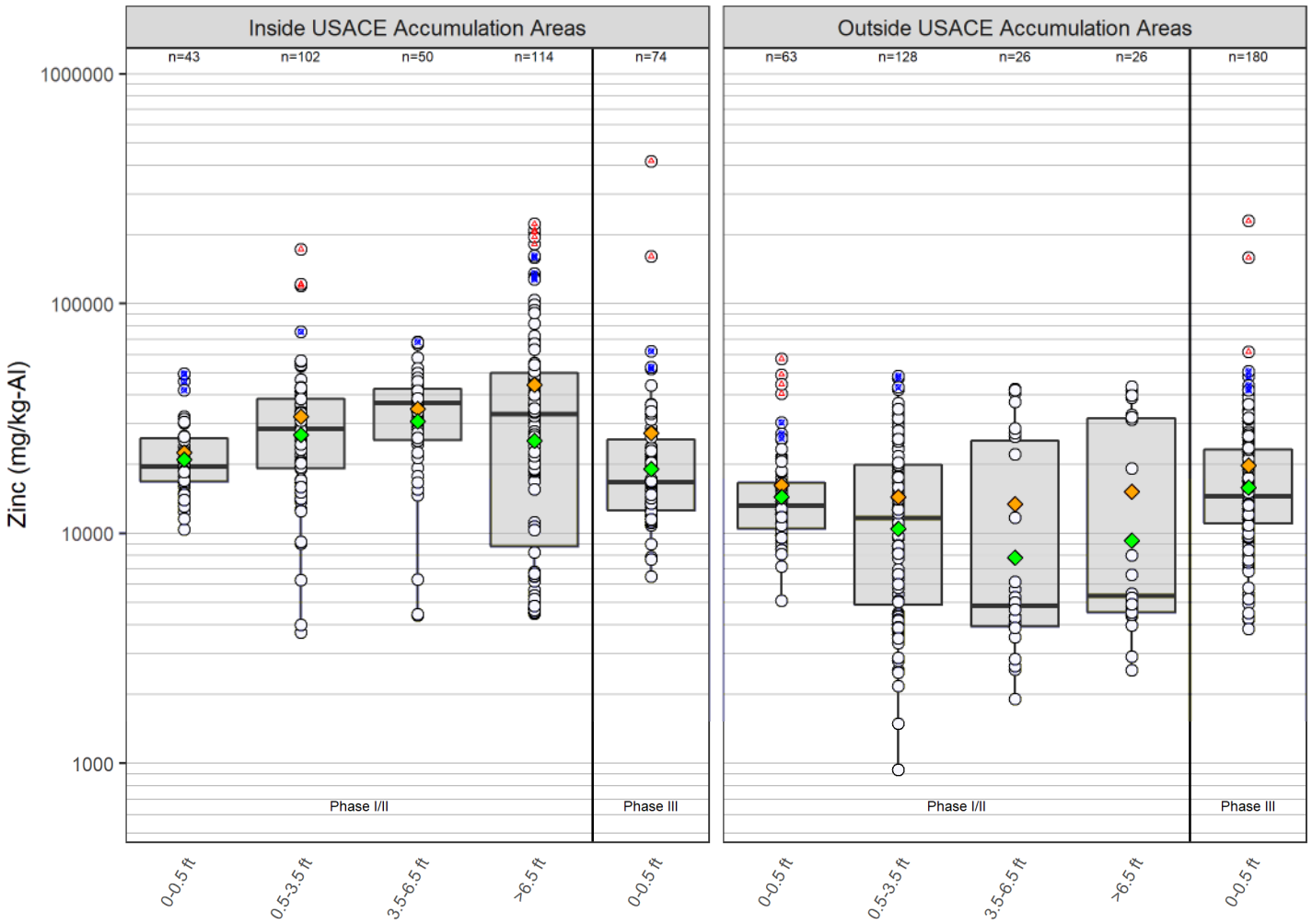
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

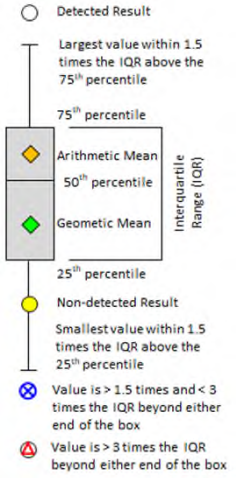
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - SILVER-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-208





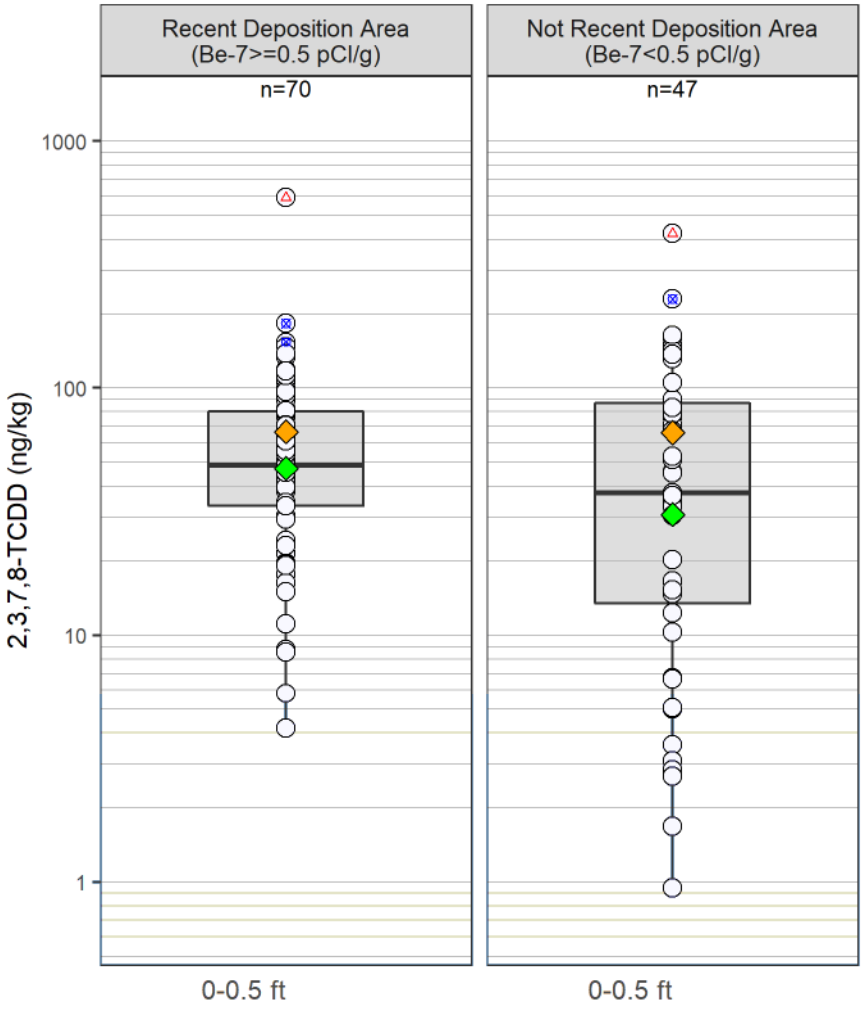
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
Phase III = 2014 Crab/Clam, 2015 SQT, & 2016 Phase III
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.
United States Army Corps of Engineers (USACE) depositional areas shown on Figure 3-4.

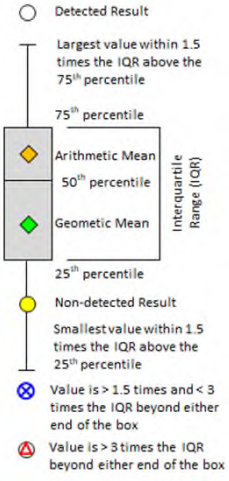
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY DEPOSITION AREA - ZINC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-209





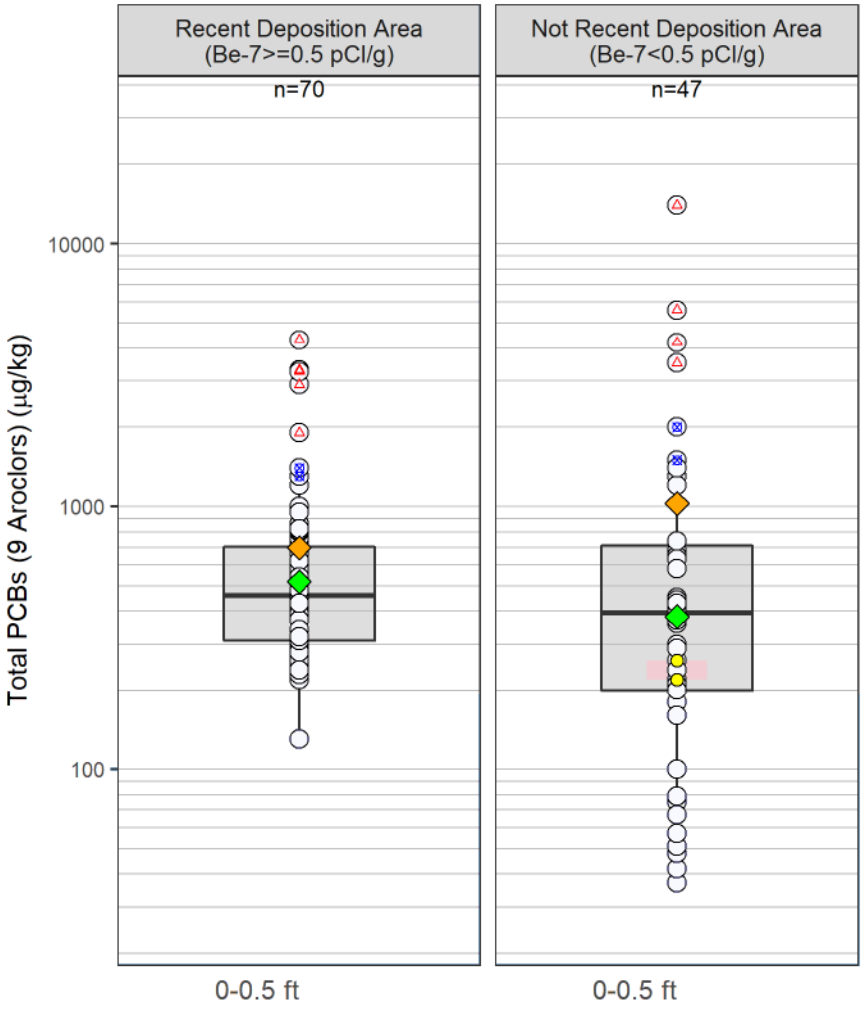
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

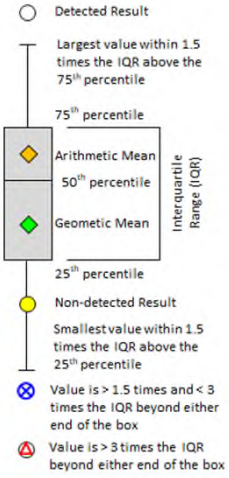
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - 2,3,7,8-TCDD

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-210





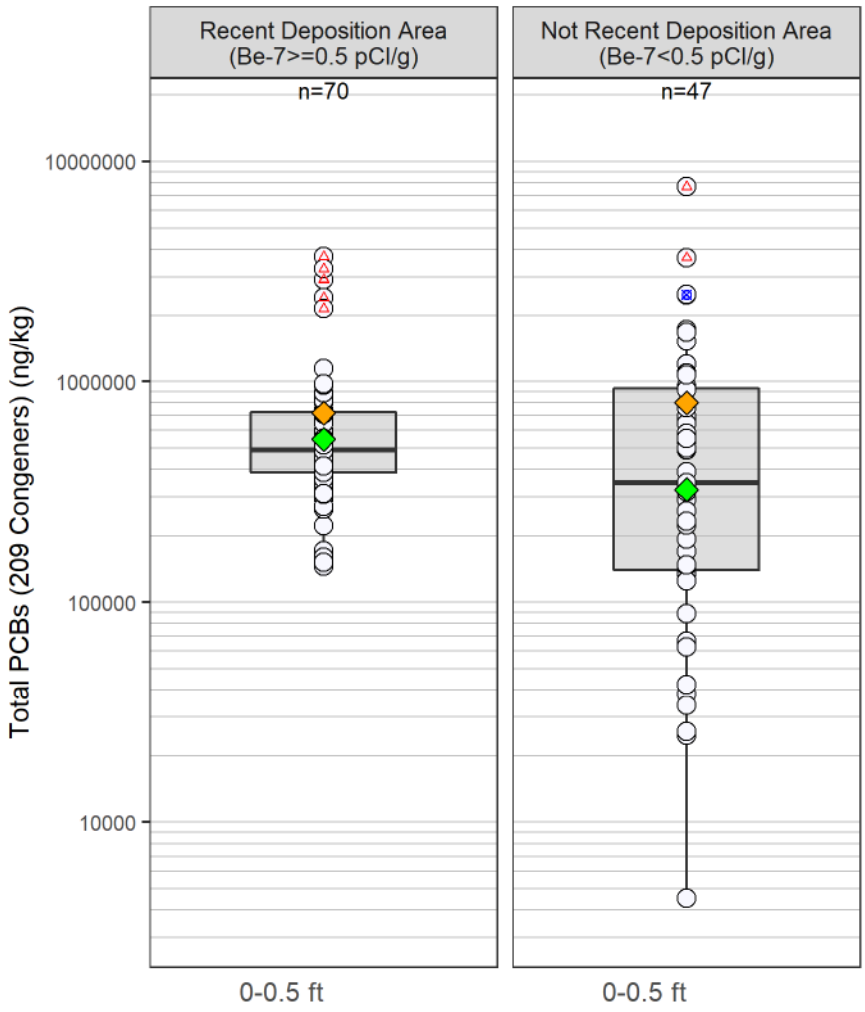
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
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Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

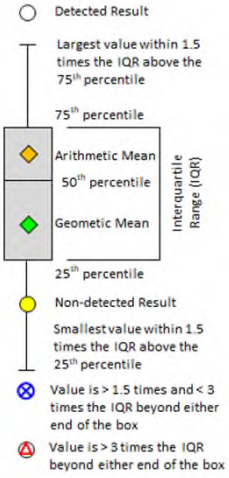
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL PCBS (9 AROCLORS)

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-211





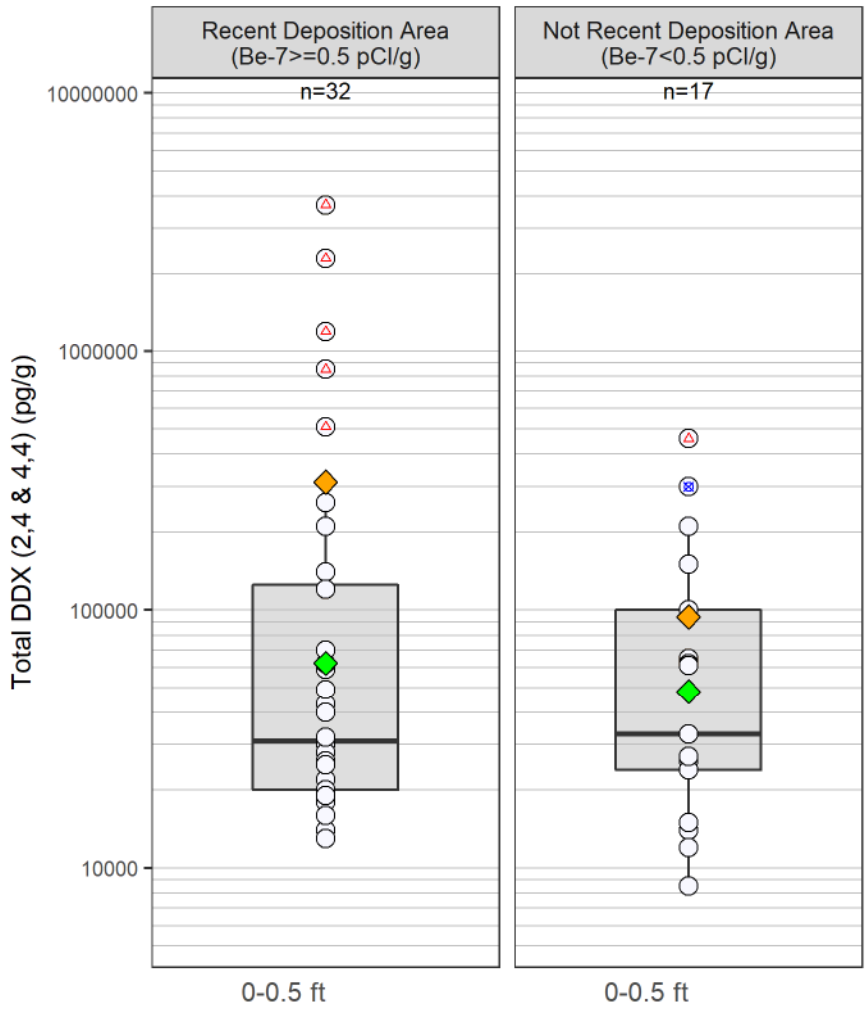
Notes:
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n = number of samples
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

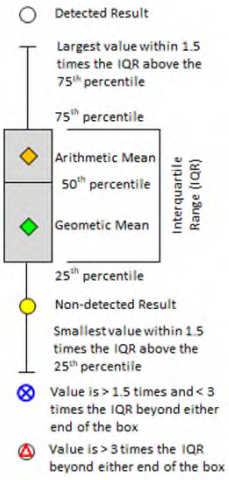
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL PCB (209 CONGENERS)

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-212





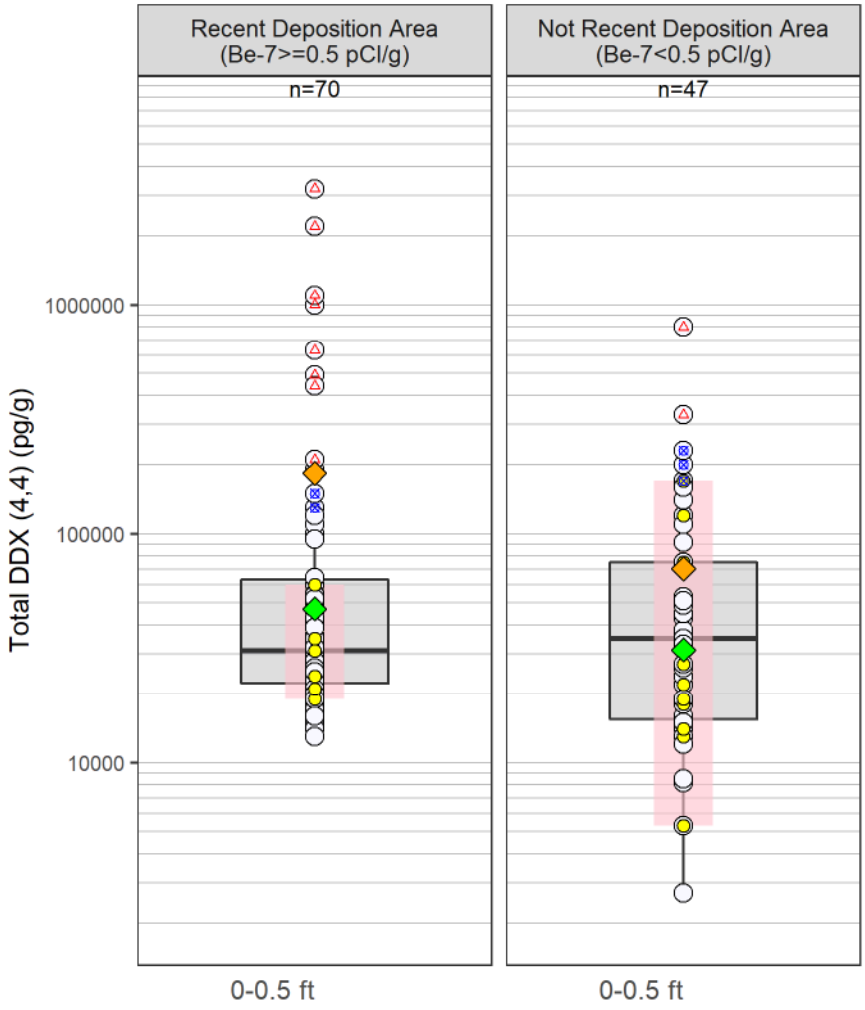
Notes:
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n = number of samples
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

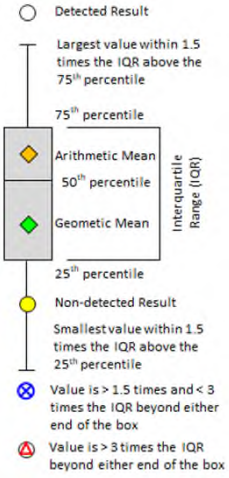
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL DDX (2,4 & 4,4)

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-213





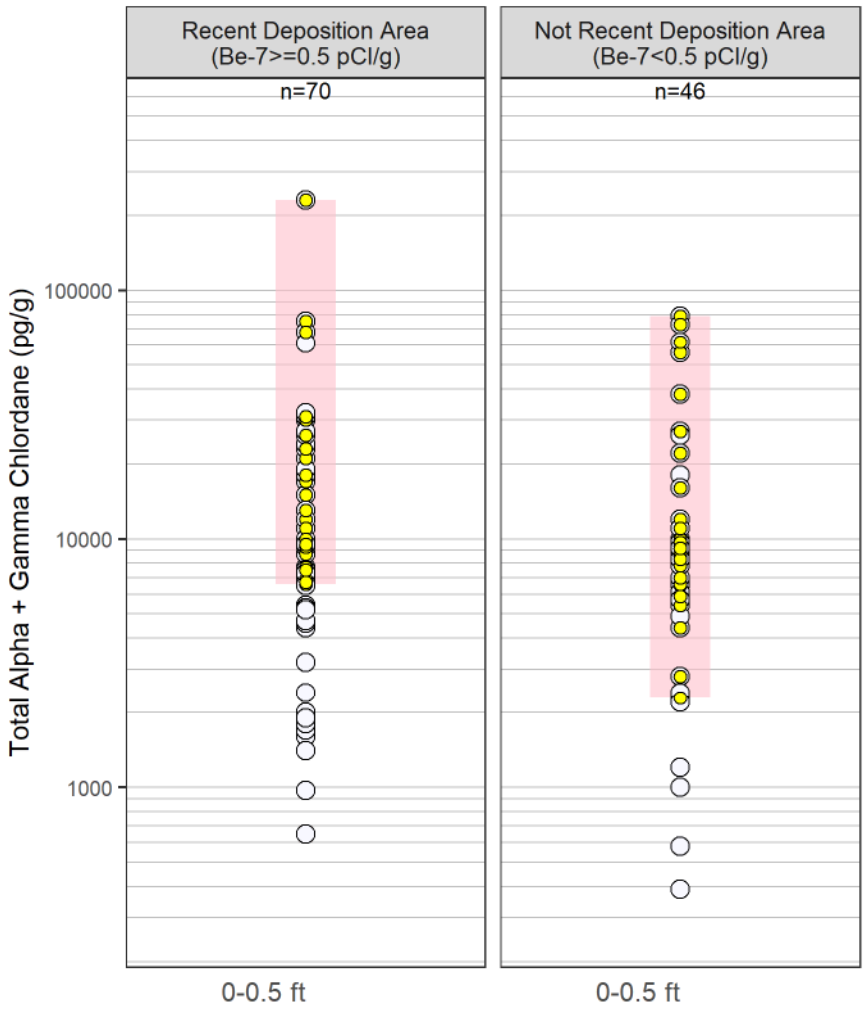
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

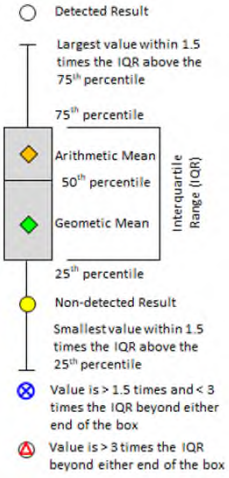
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL DDX (4,4)

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-214





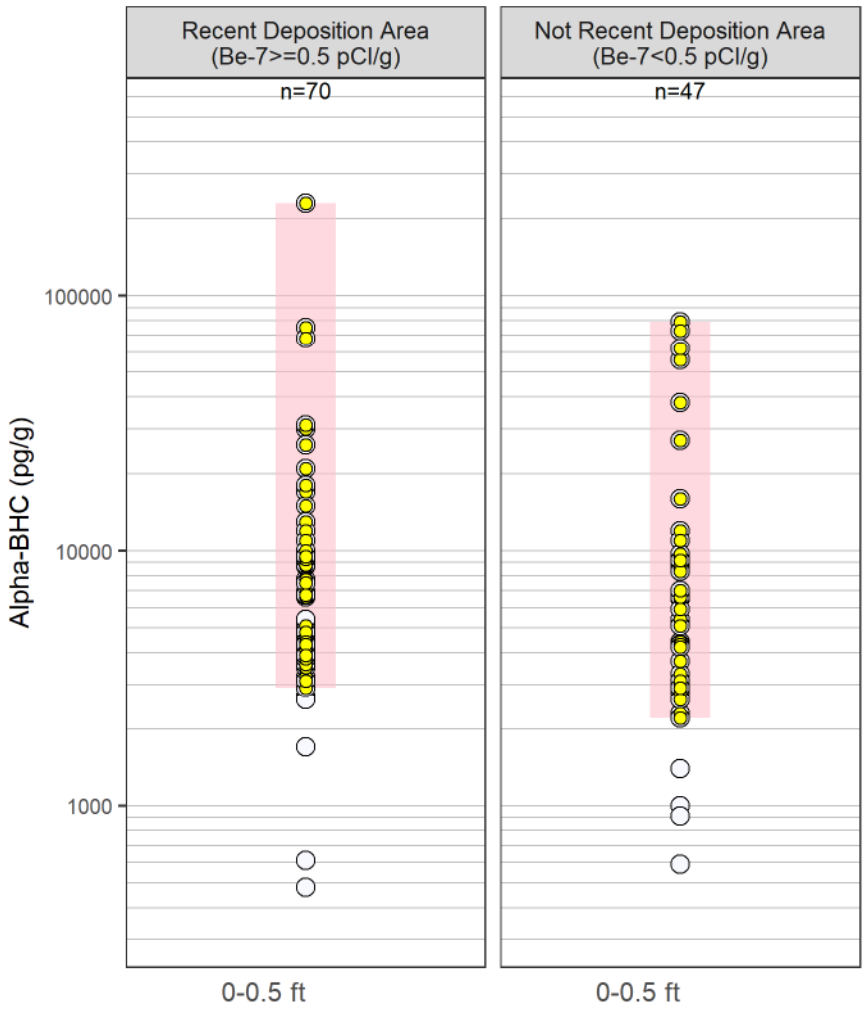
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

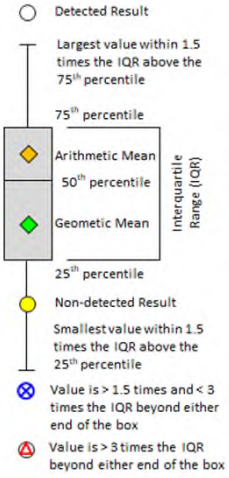
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL ALPHA + GAMMA CHLORDANE

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-215





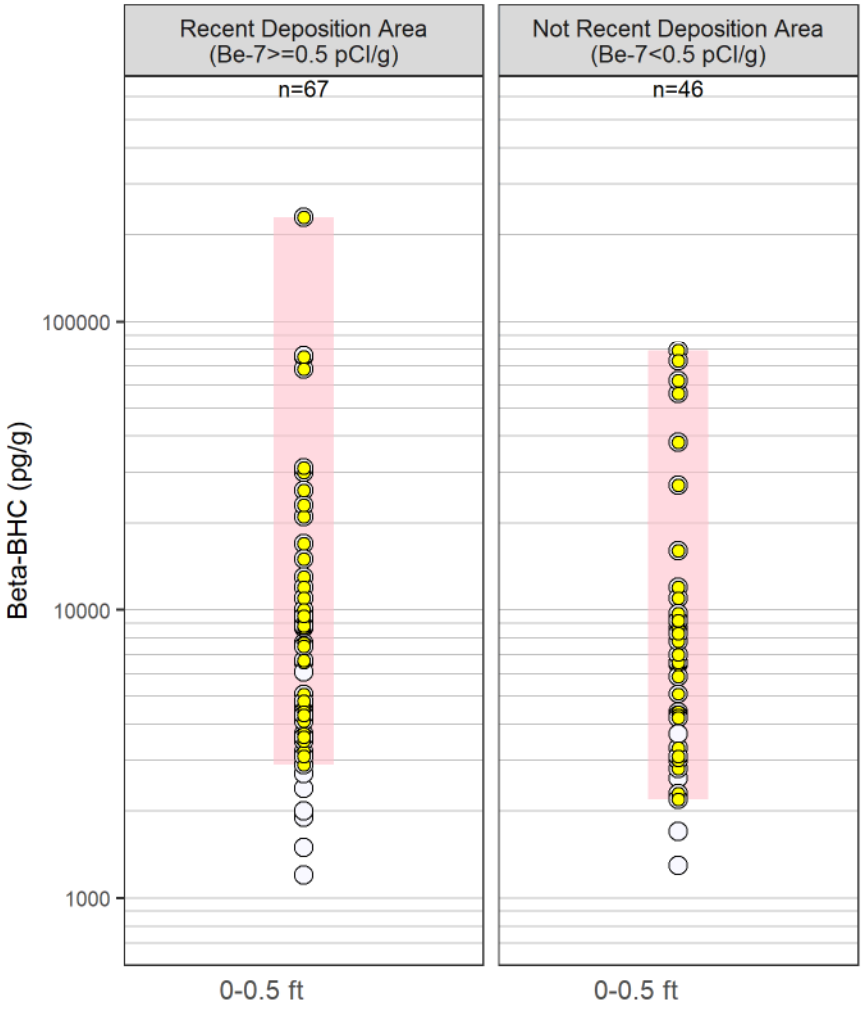
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
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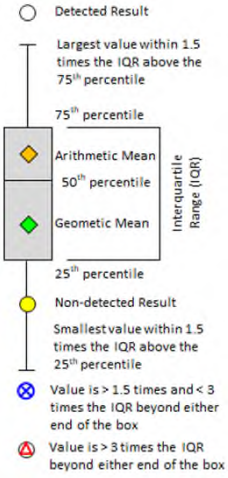
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - ALPHA-BHC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-216





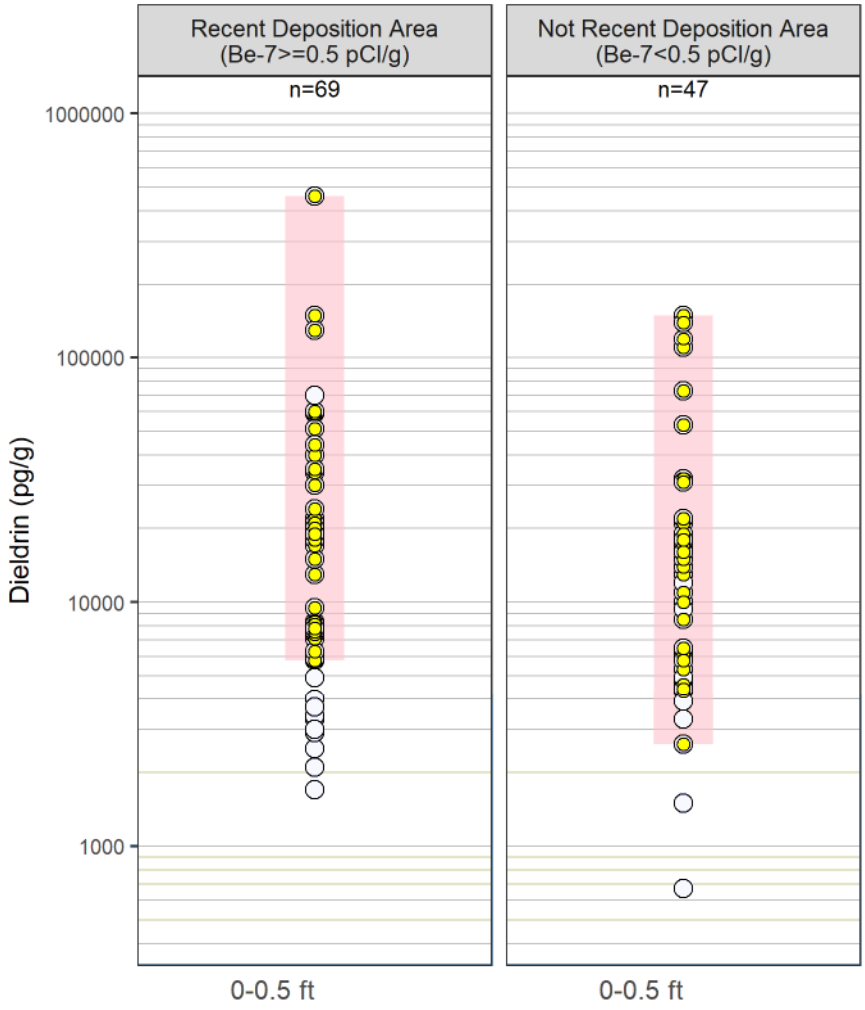
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

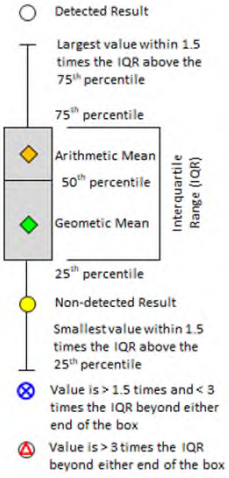
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - BETA-BHC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-217





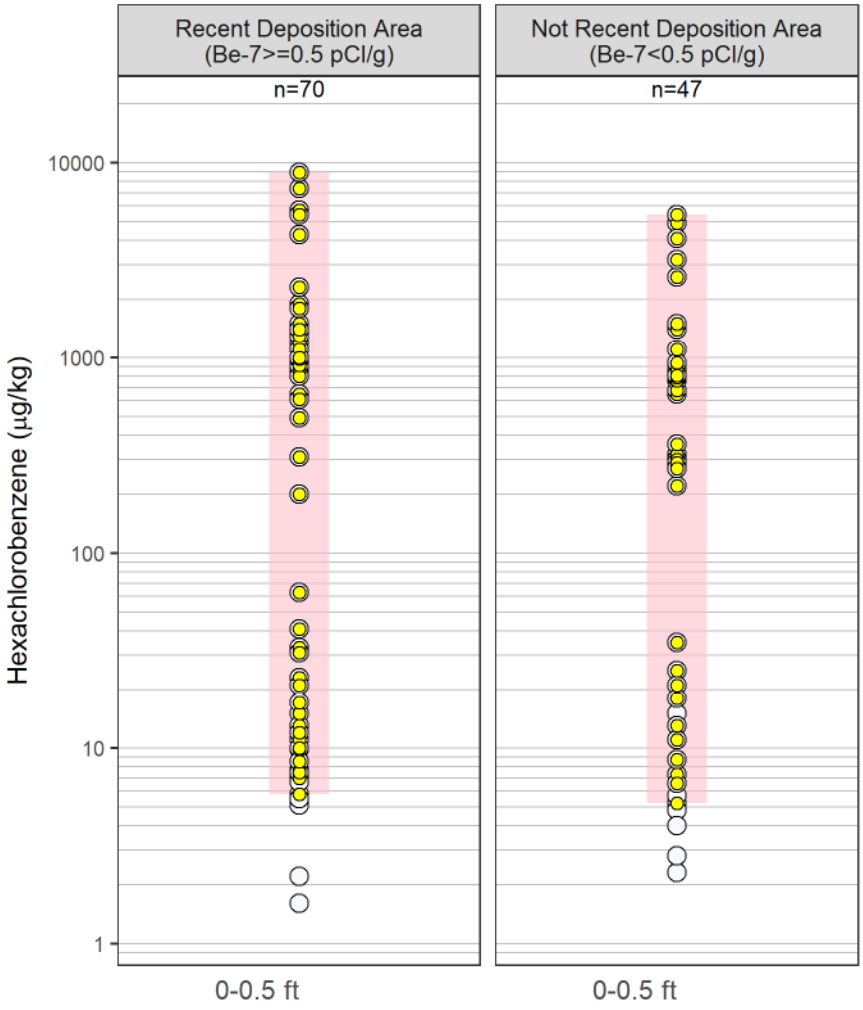
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
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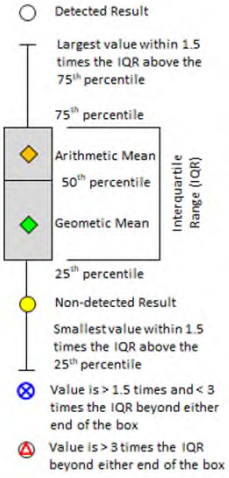
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - DIELDRIN

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-218





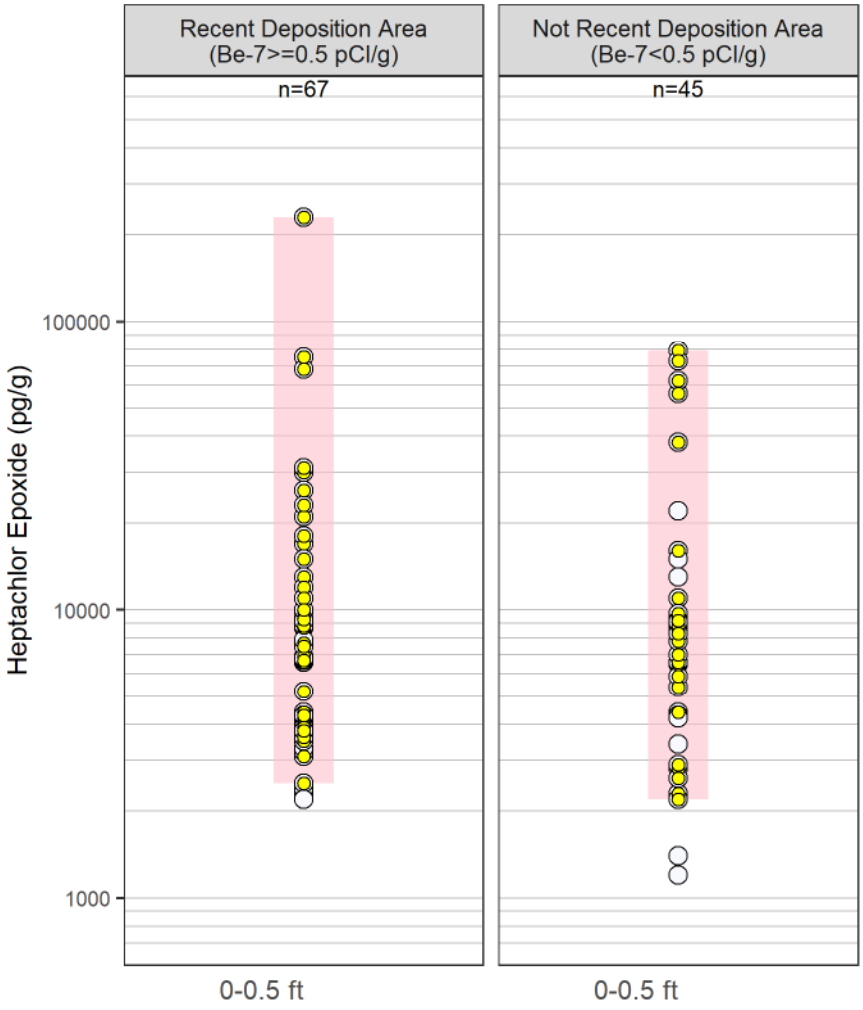
Notes:
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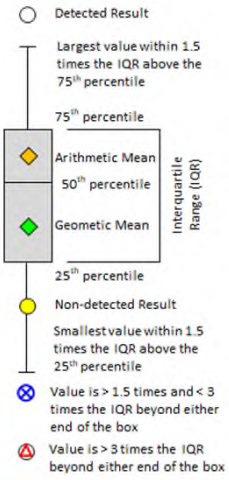
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - HEXACHLOROBENZENE

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-219





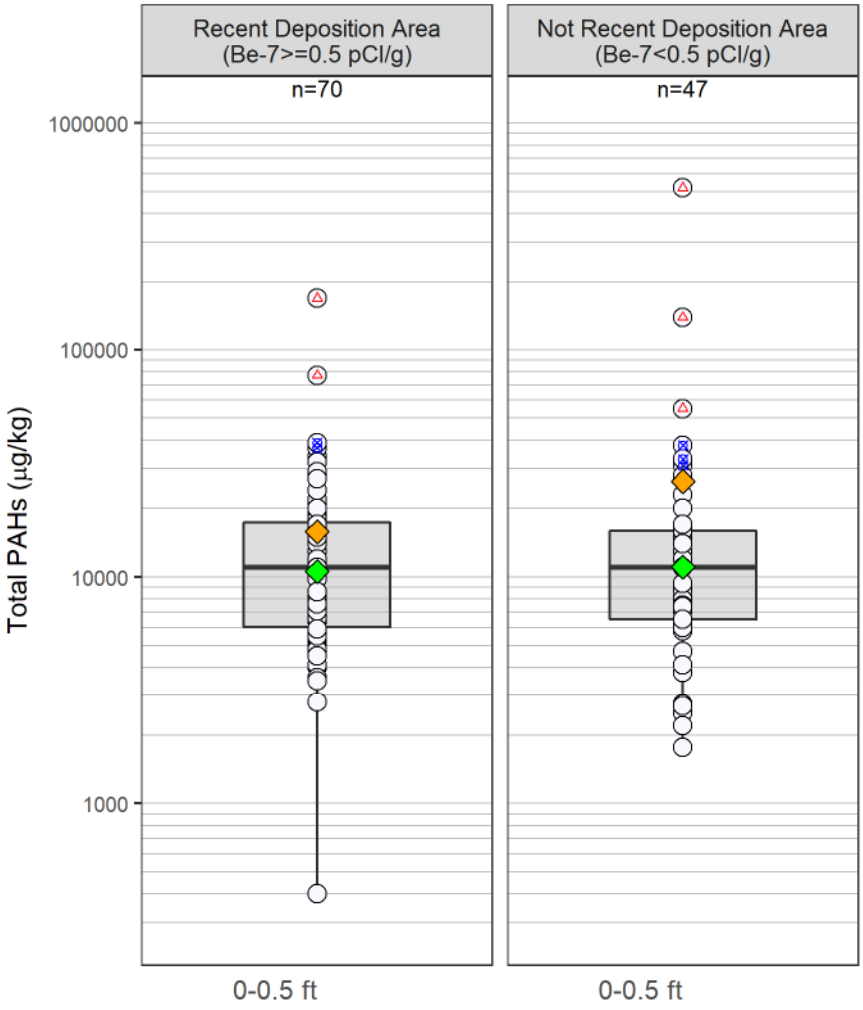
Notes:
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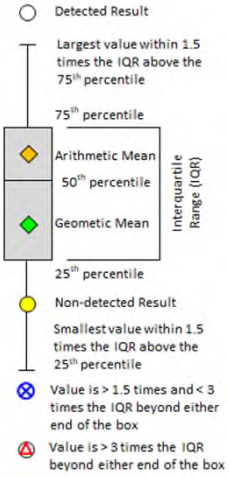
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - HEPTACHLOR EPOXIDE

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-220





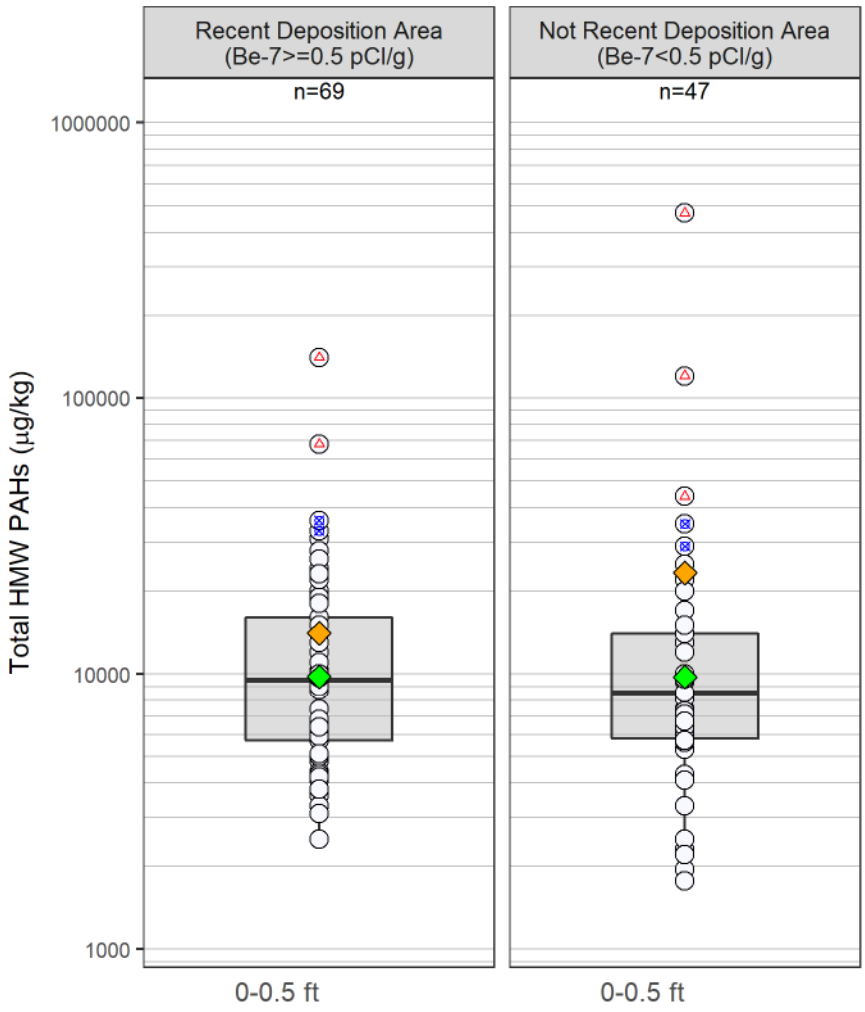
Notes:
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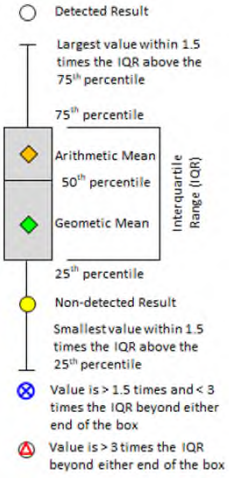
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL PAHS

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-221





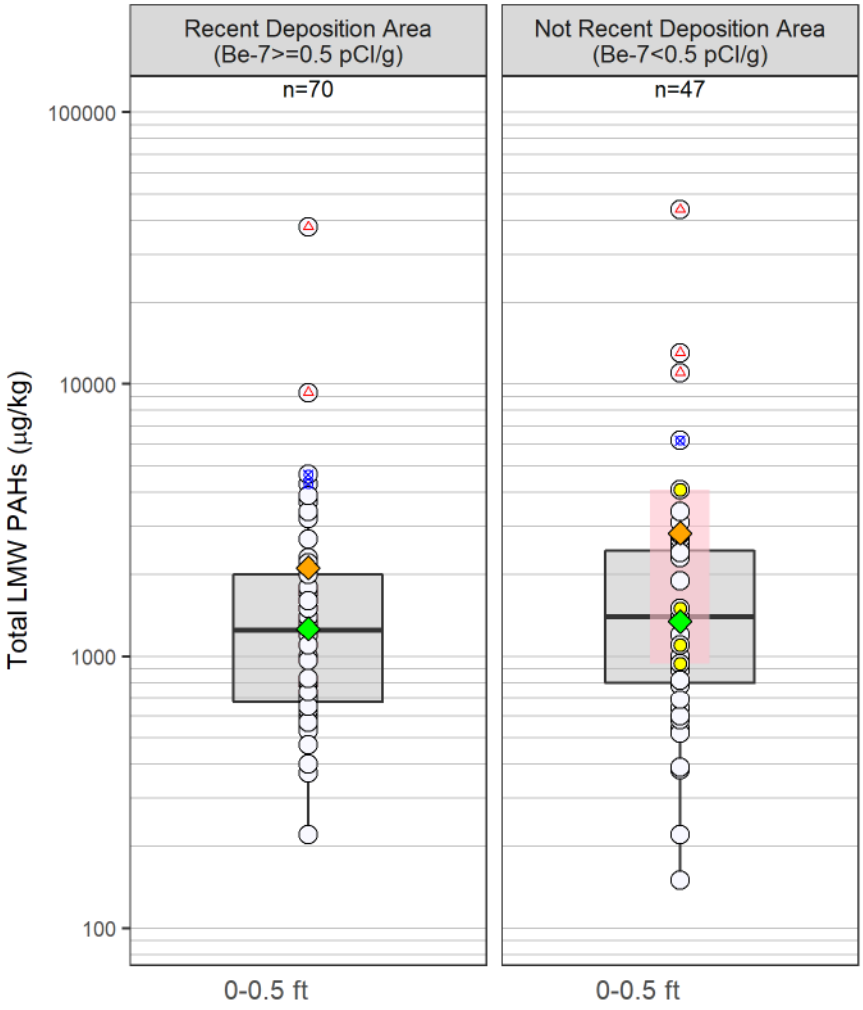
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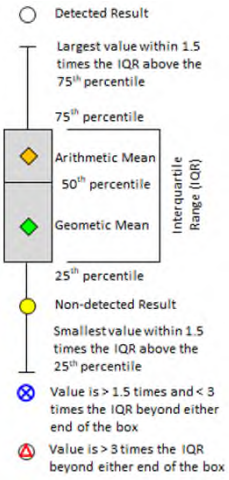
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL HMW PAHS

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-222





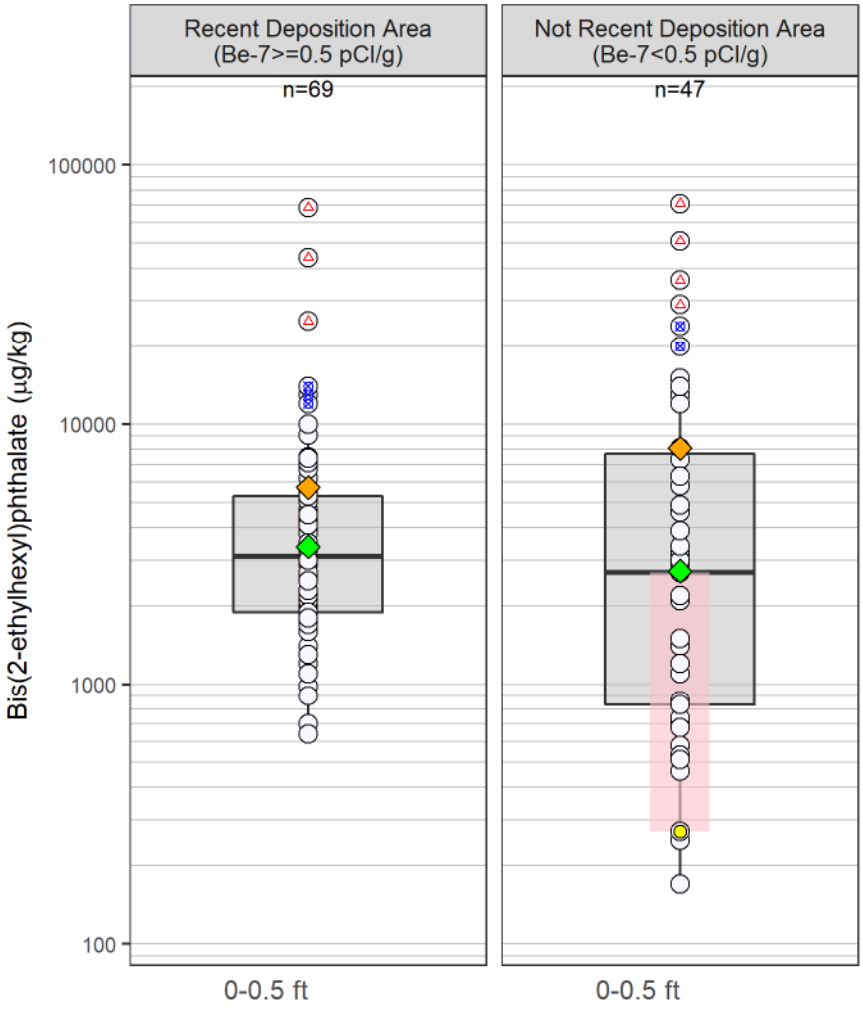
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

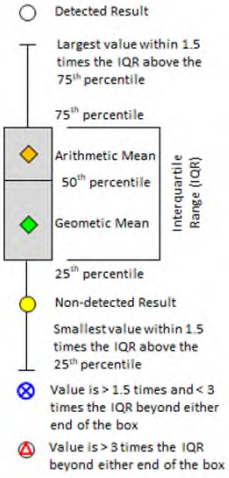
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL LMW PAHS

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-223





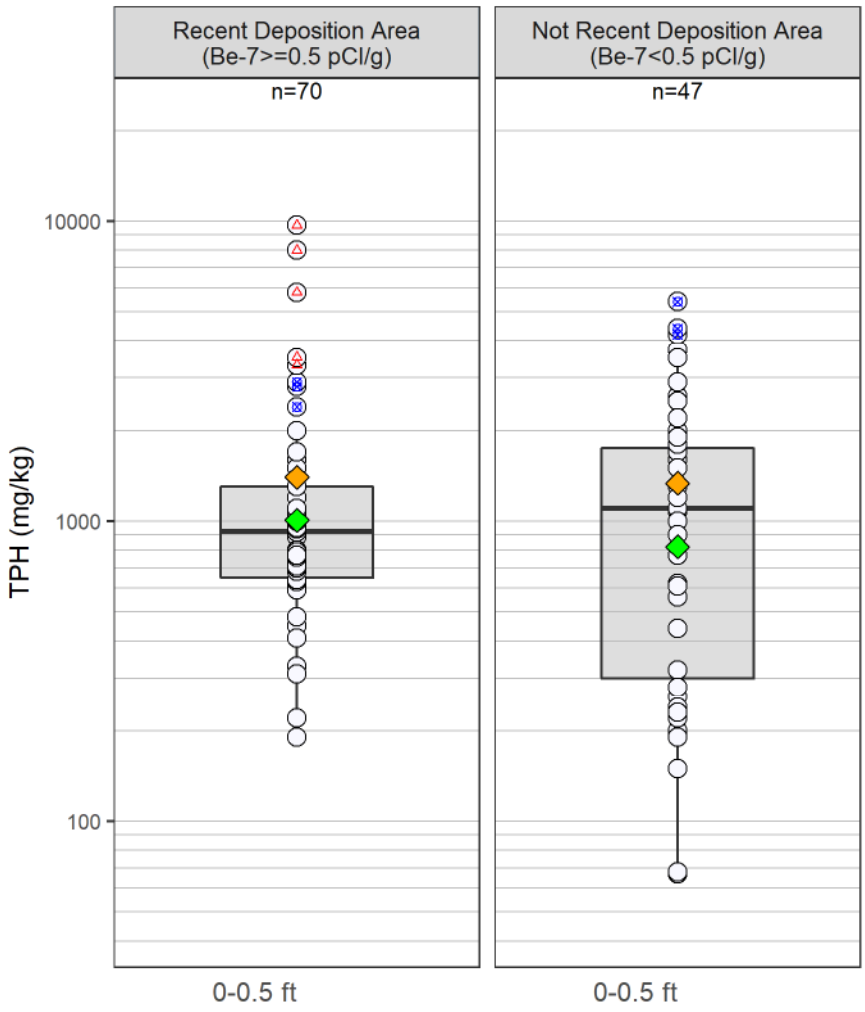
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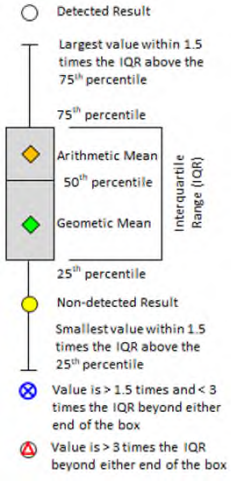
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - BIS(2-ETHYLHEXYL)PHTHALATE

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-224





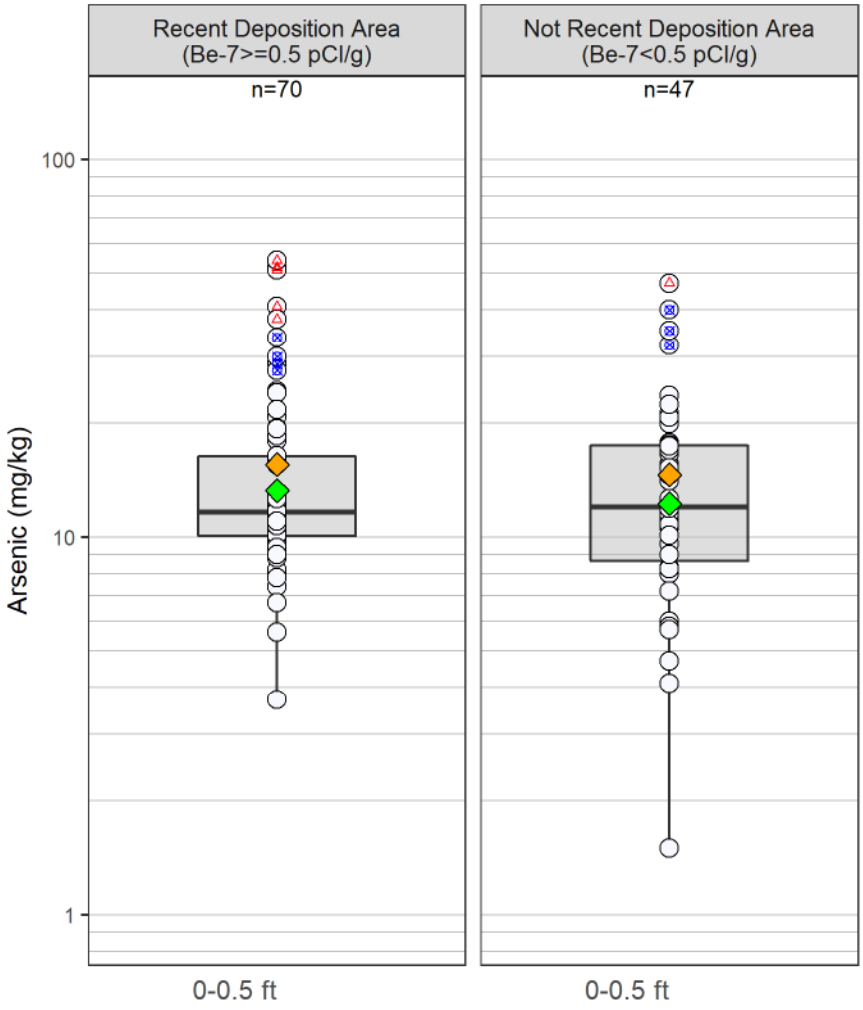
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Top depth >= 6.5 ft = >6.5 ft
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

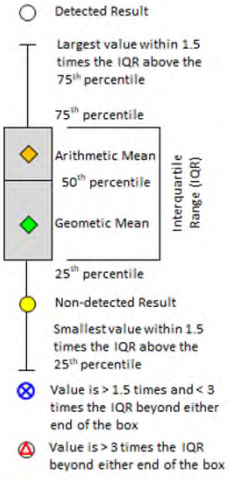
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TPH

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-225





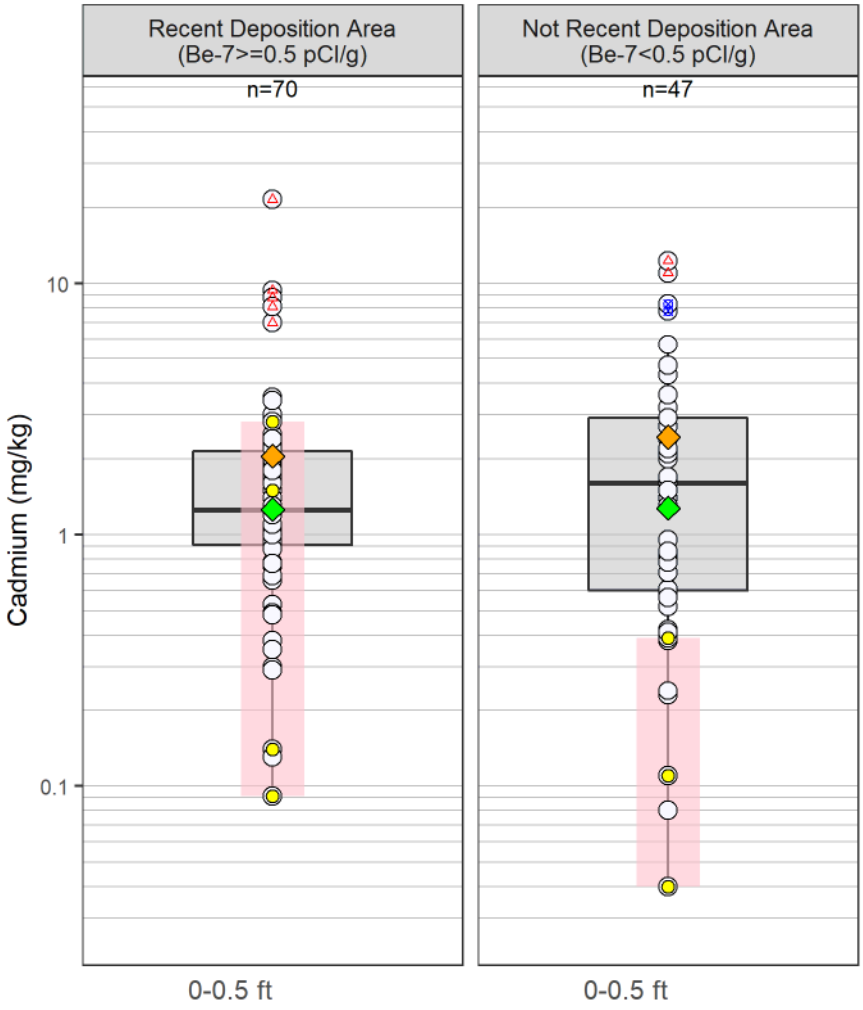
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

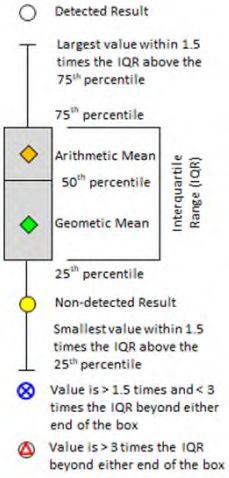
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - ARSENIC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-226





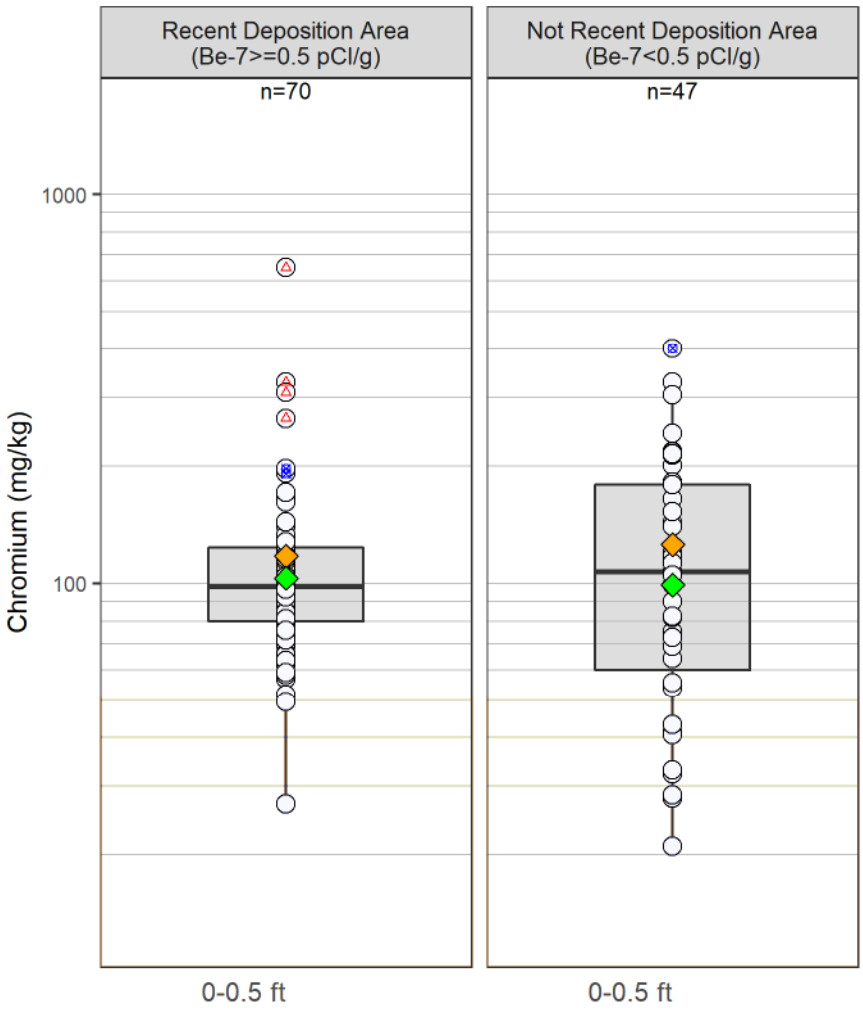
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

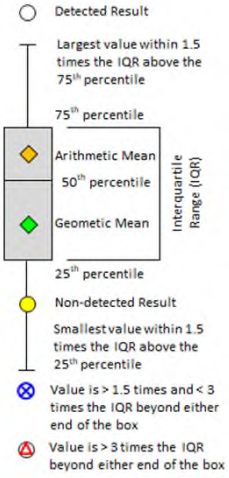
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - CADMIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-227





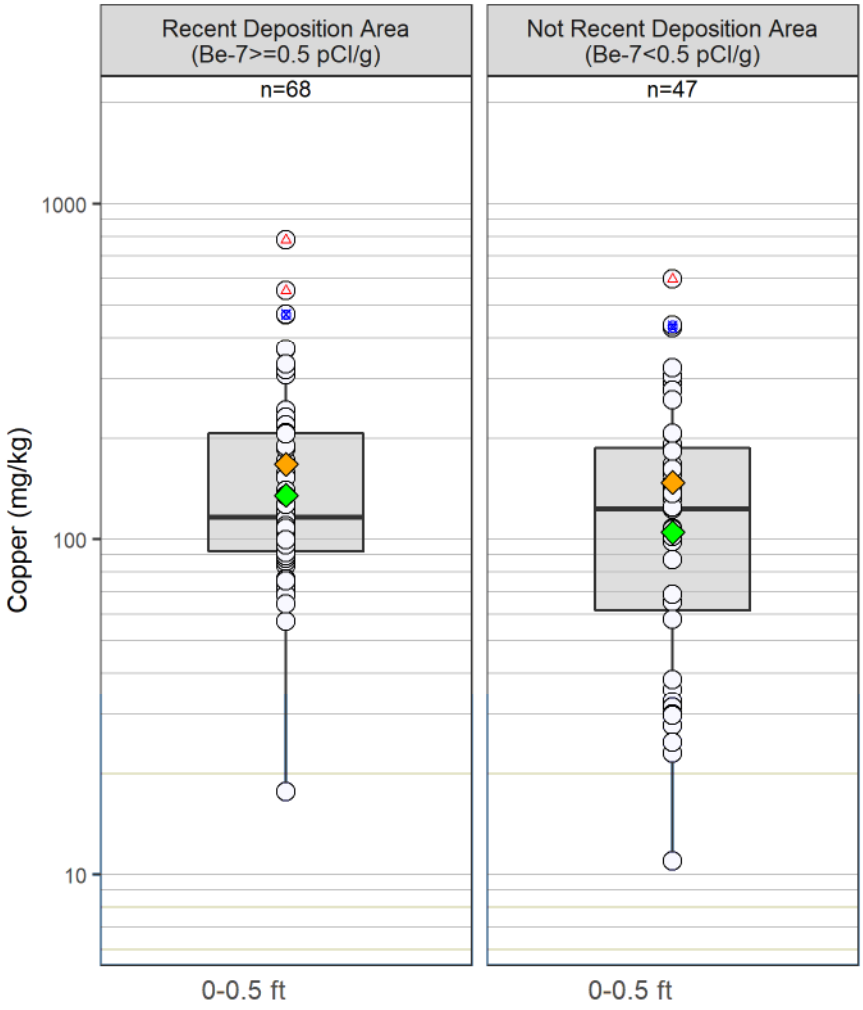
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

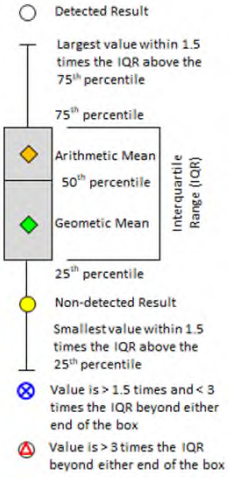
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - CHROMIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-228





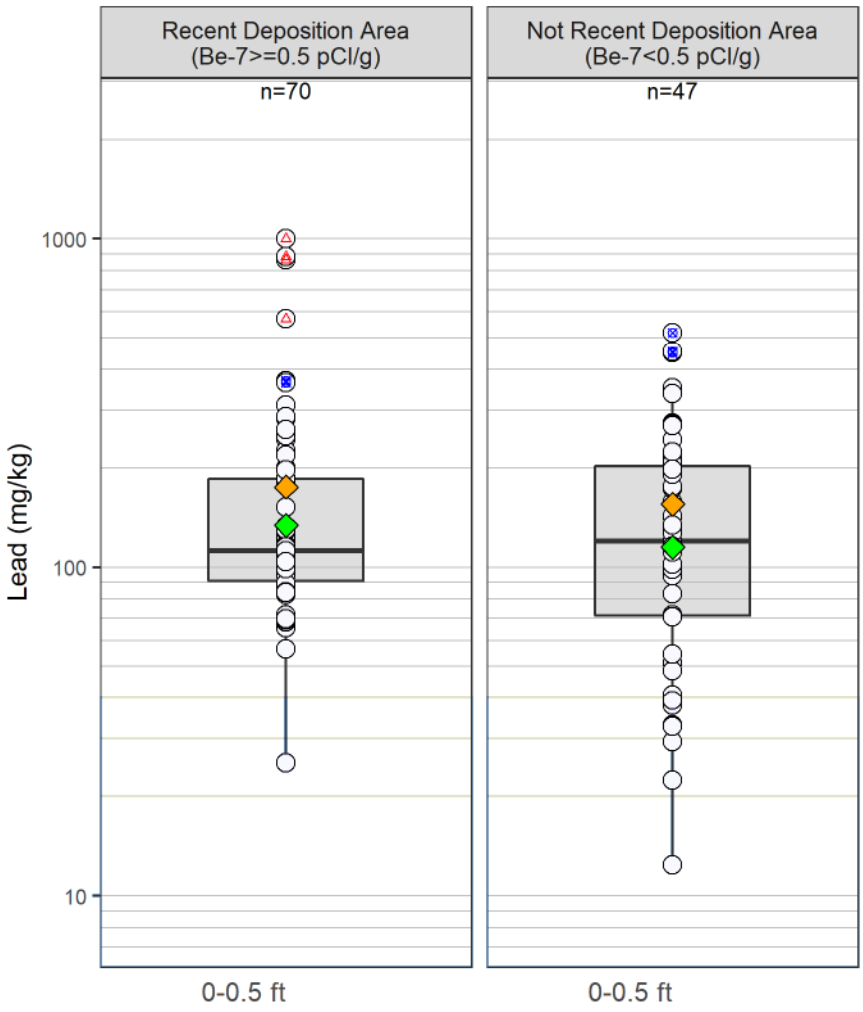
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

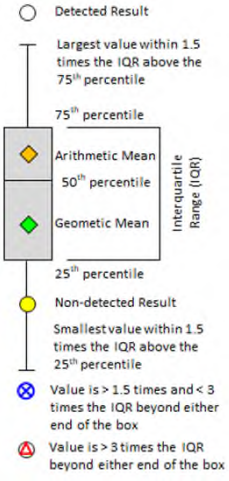
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - COPPER

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-229





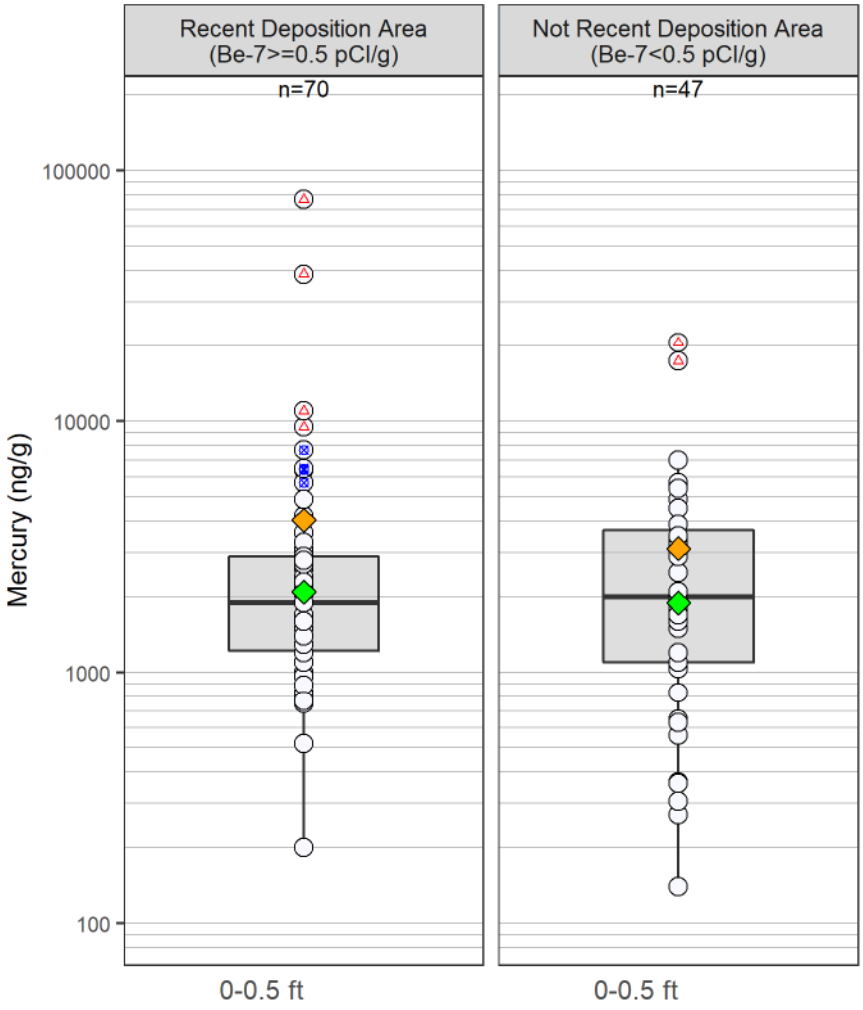
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

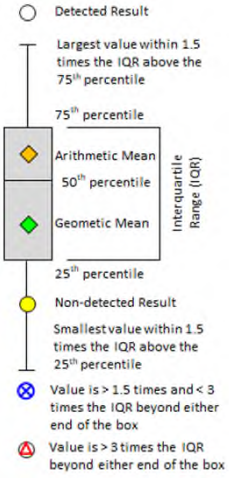
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - LEAD

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-230





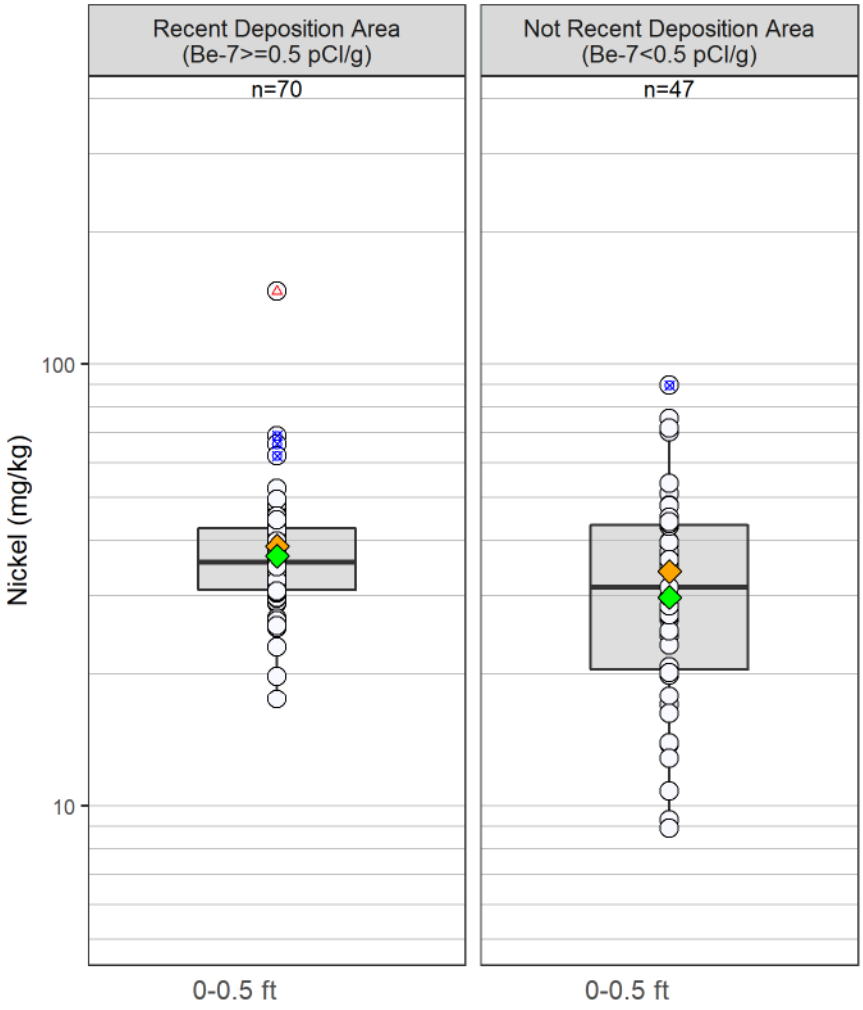
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

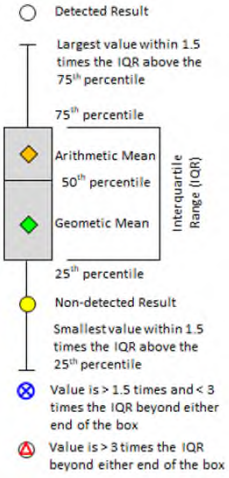
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - MERCURY

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-231





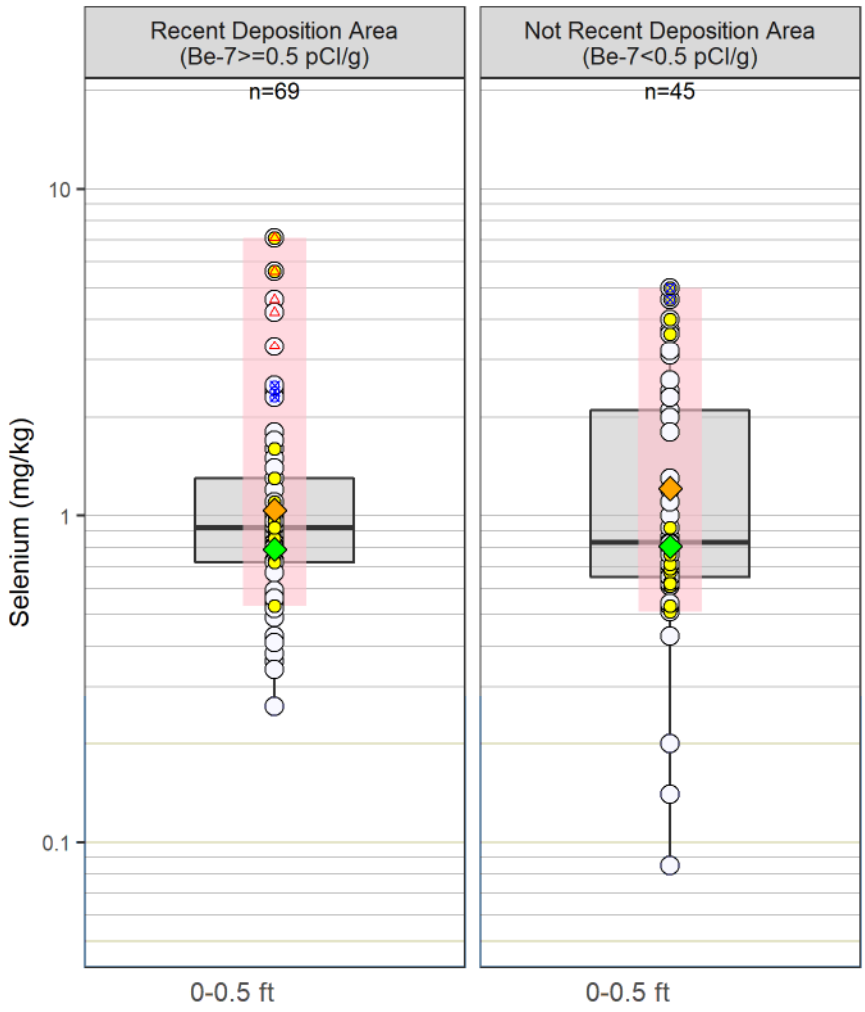
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
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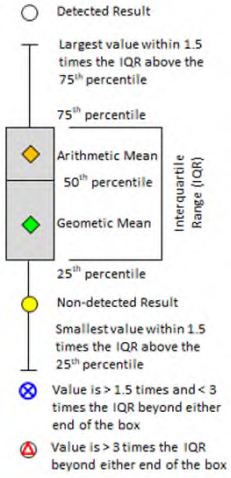
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - NICKEL

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-232





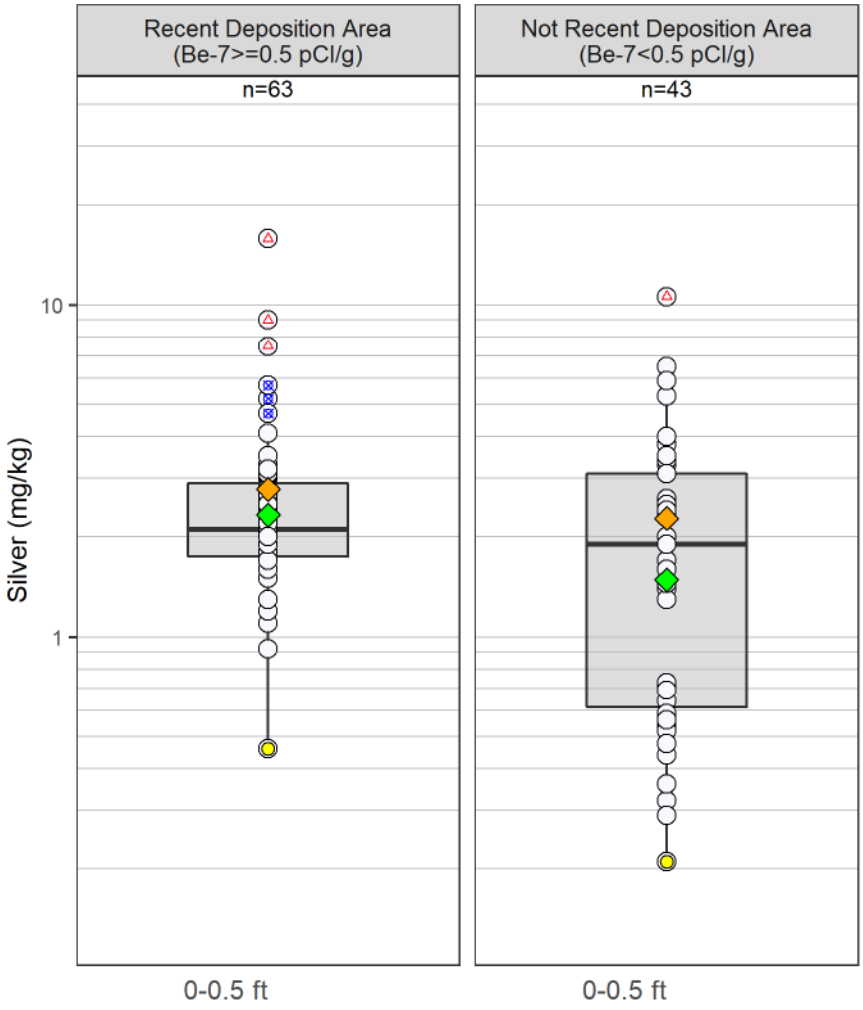
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
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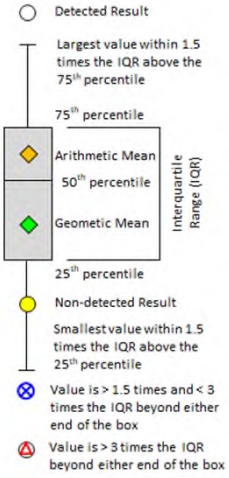
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - SELENIUM

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-233





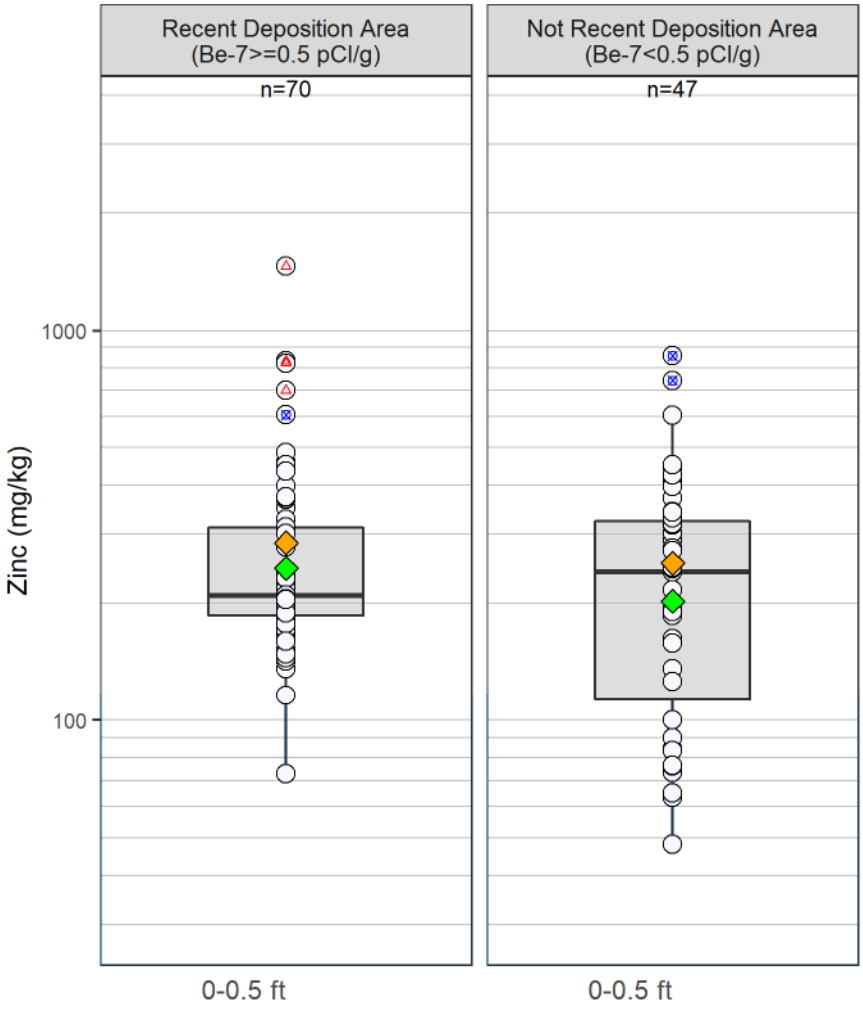
Notes:
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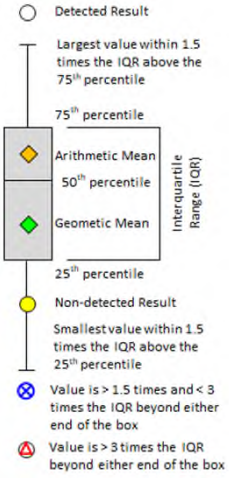
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - SILVER

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-234





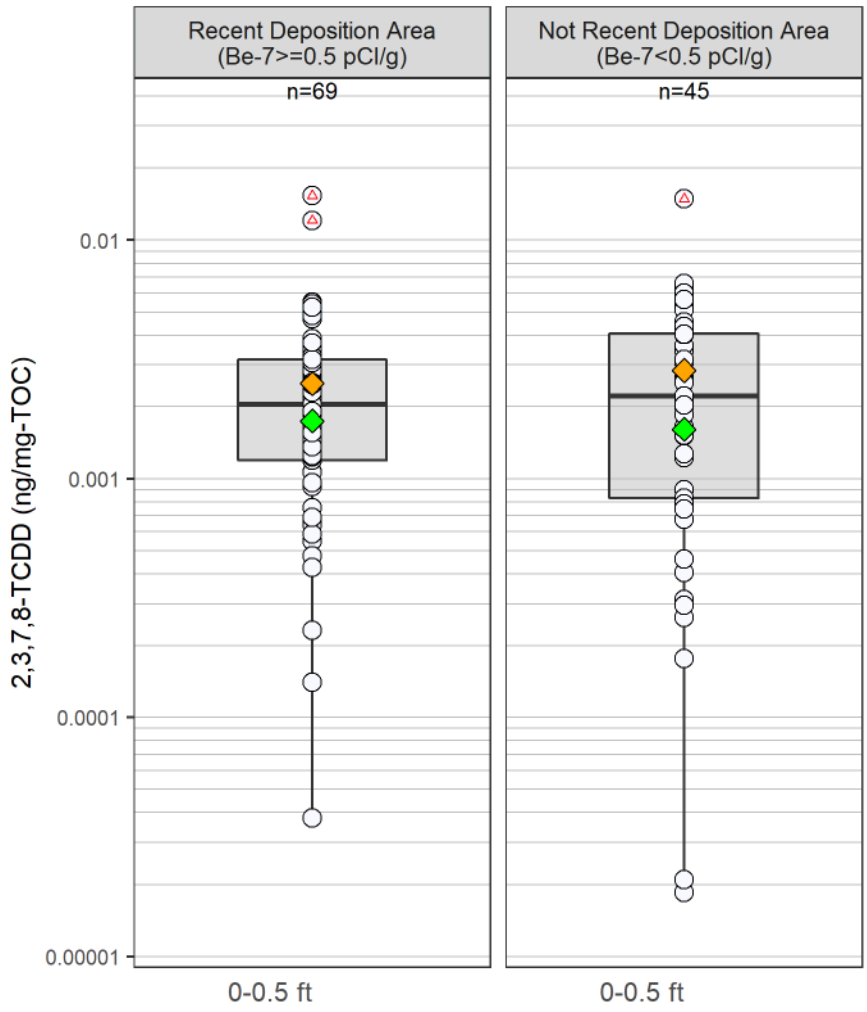
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
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Pink shaded area represents range of non-detect quantitation limits.
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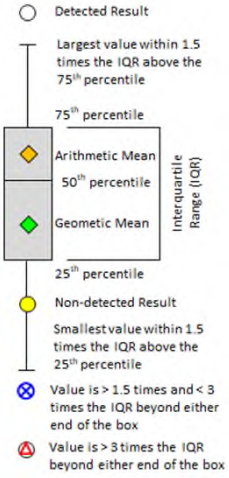
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - ZINC

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-235





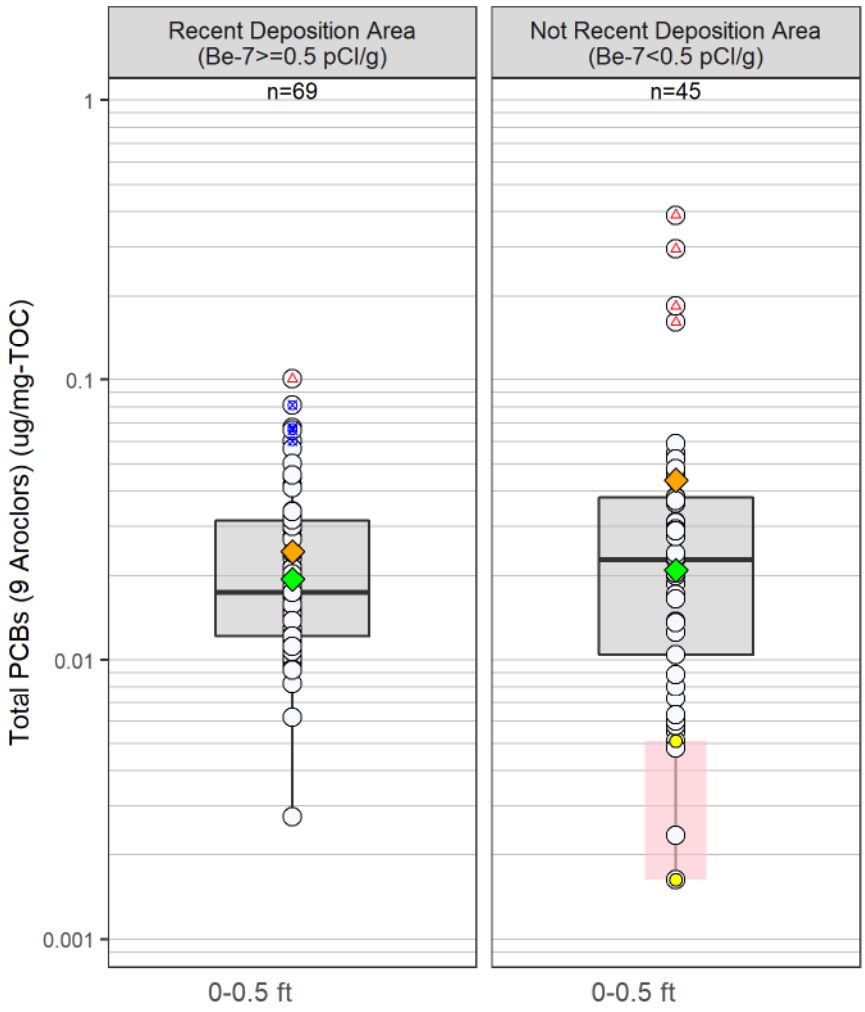
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

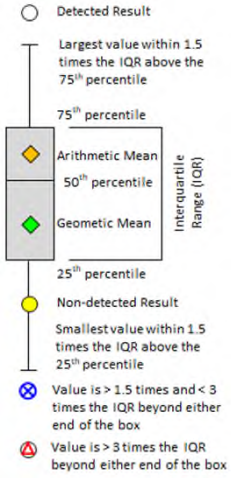
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - 2,3,7,8-TCDD-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-236





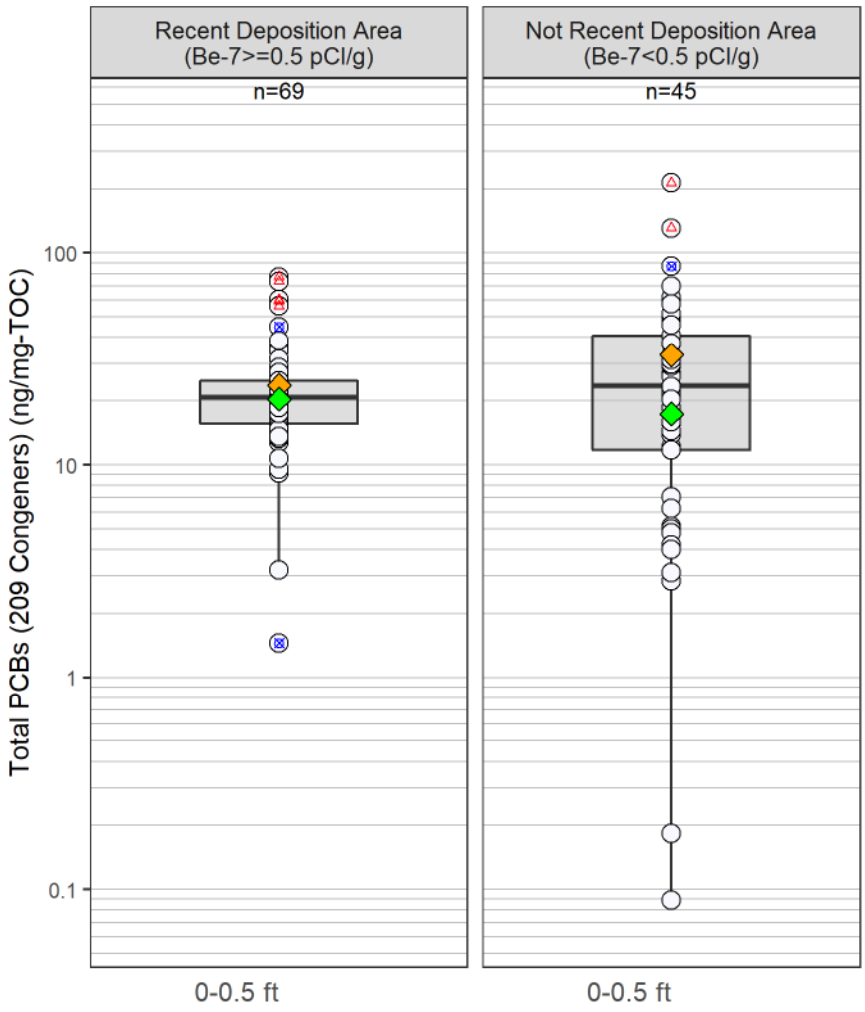
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

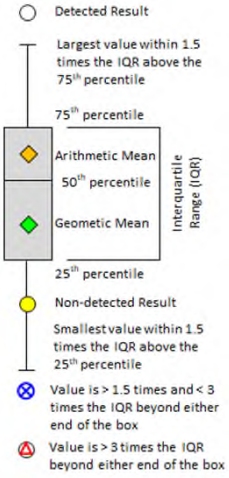
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL PCBS (9 AROCLORS)-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-237





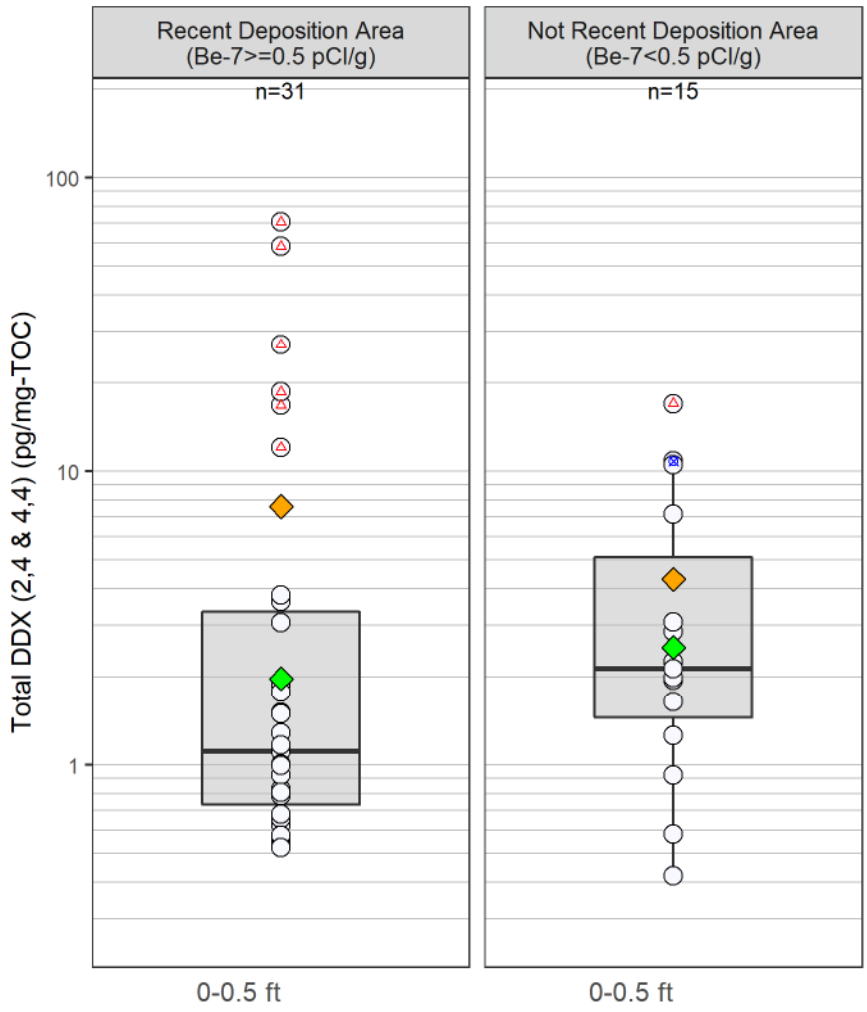
Notes:
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

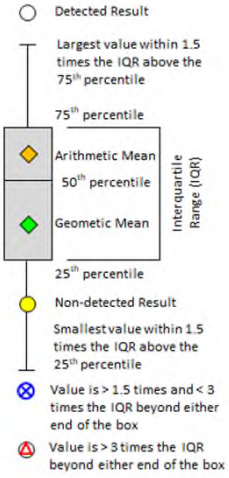
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL PCB (209 CONGENERS)-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-238





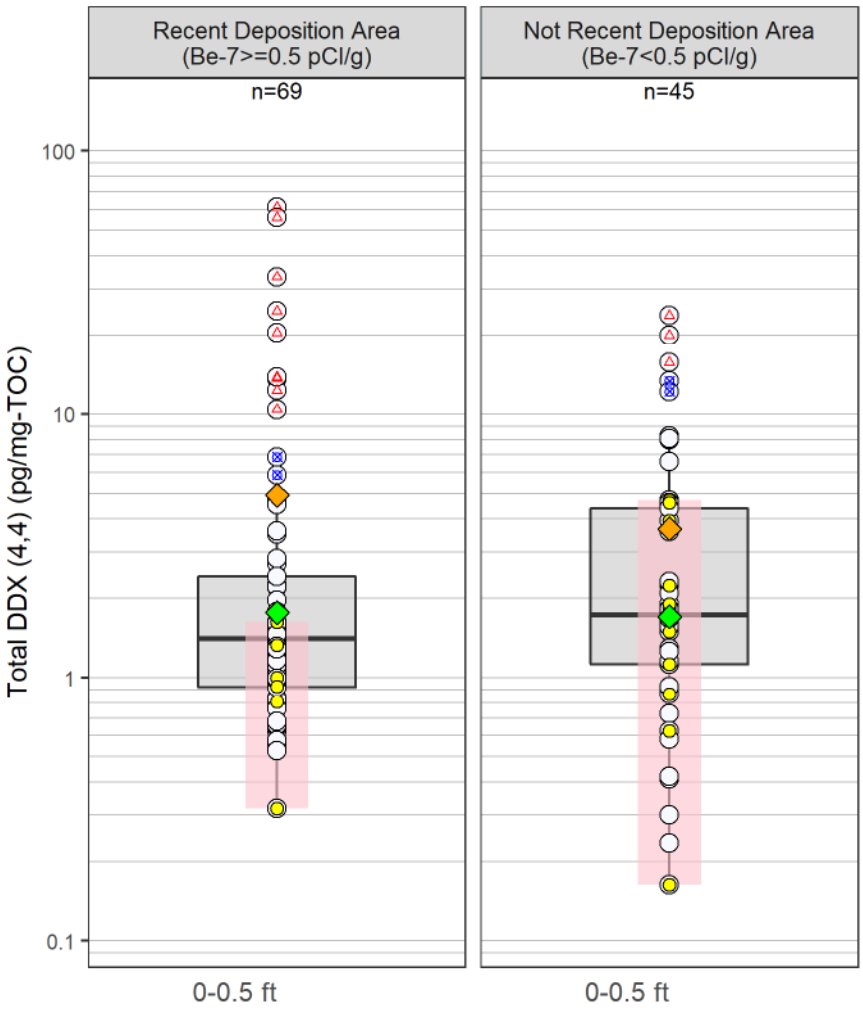
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Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

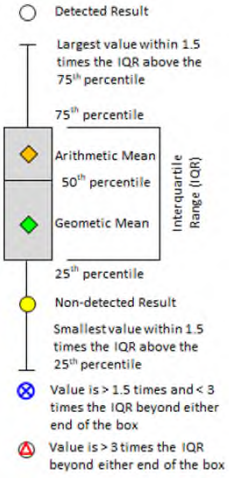
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL DDX (2,4 & 4,4)-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-239





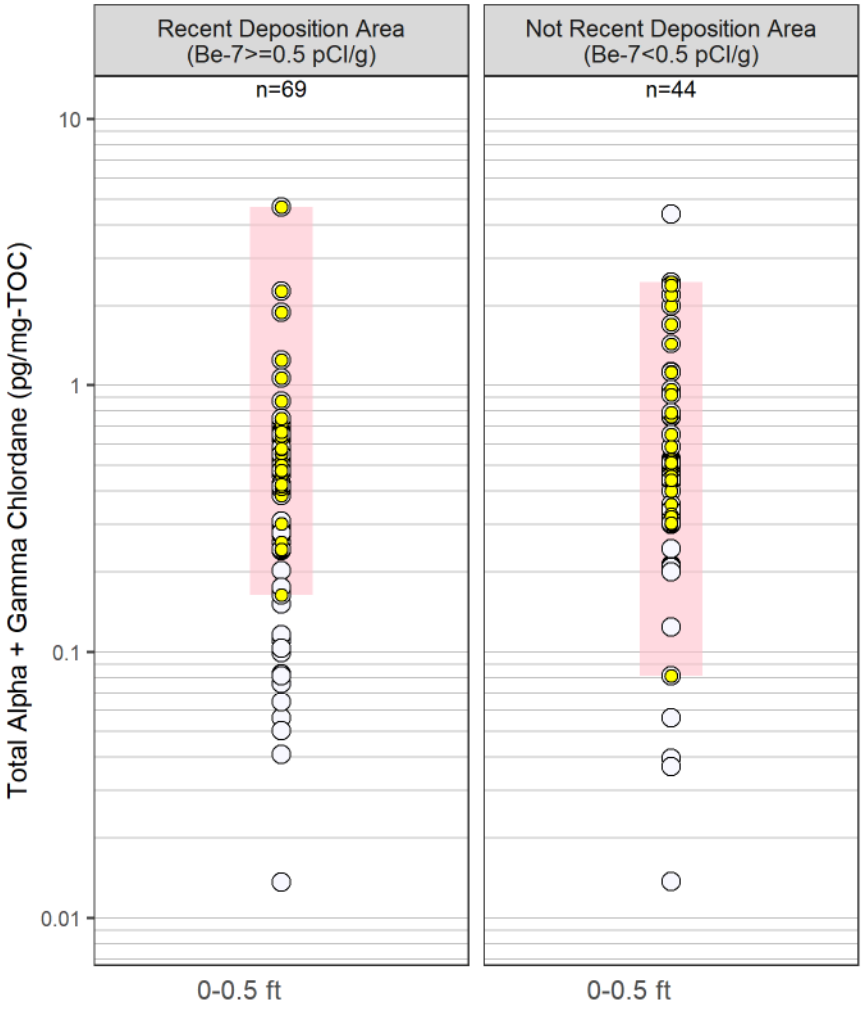
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

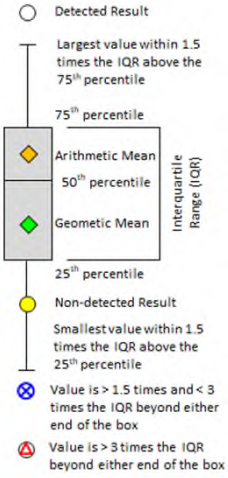
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL DDX (4,4)-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-240





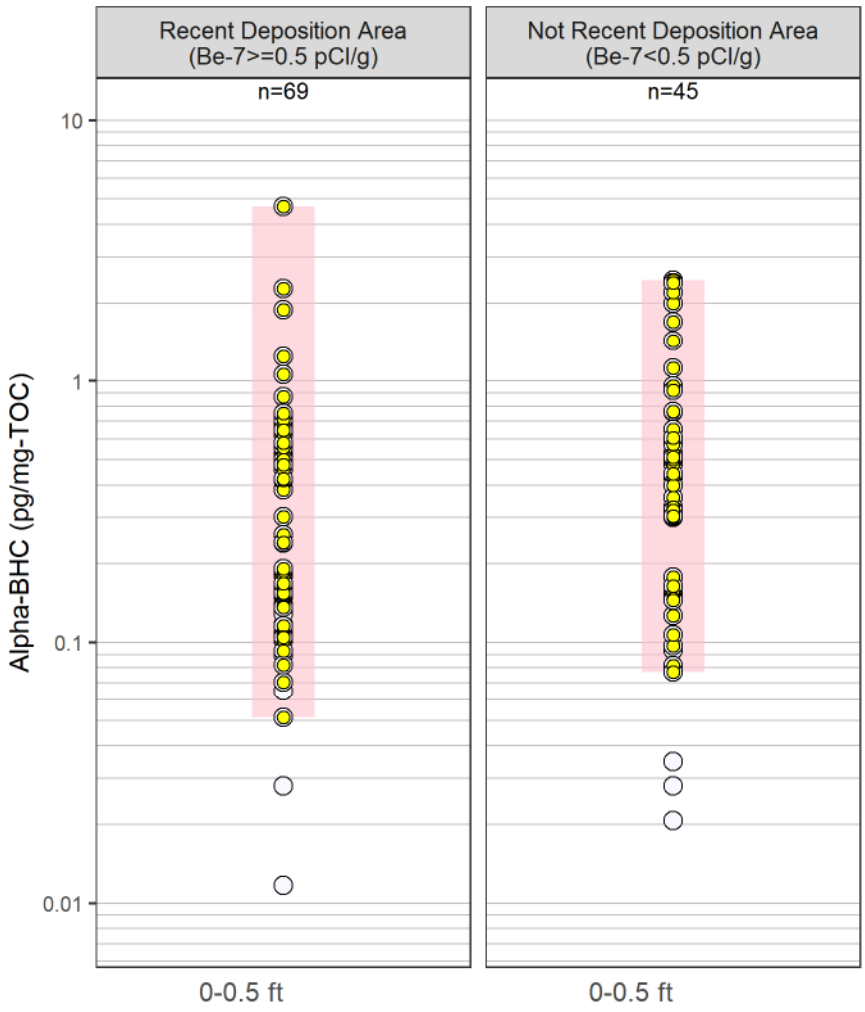
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

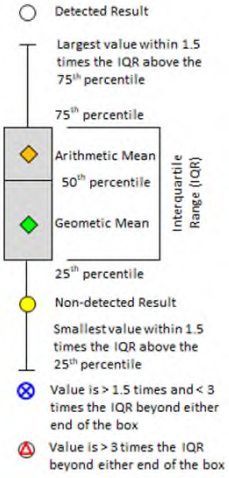
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL ALPHA + GAMMA CHLORDANE-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-241





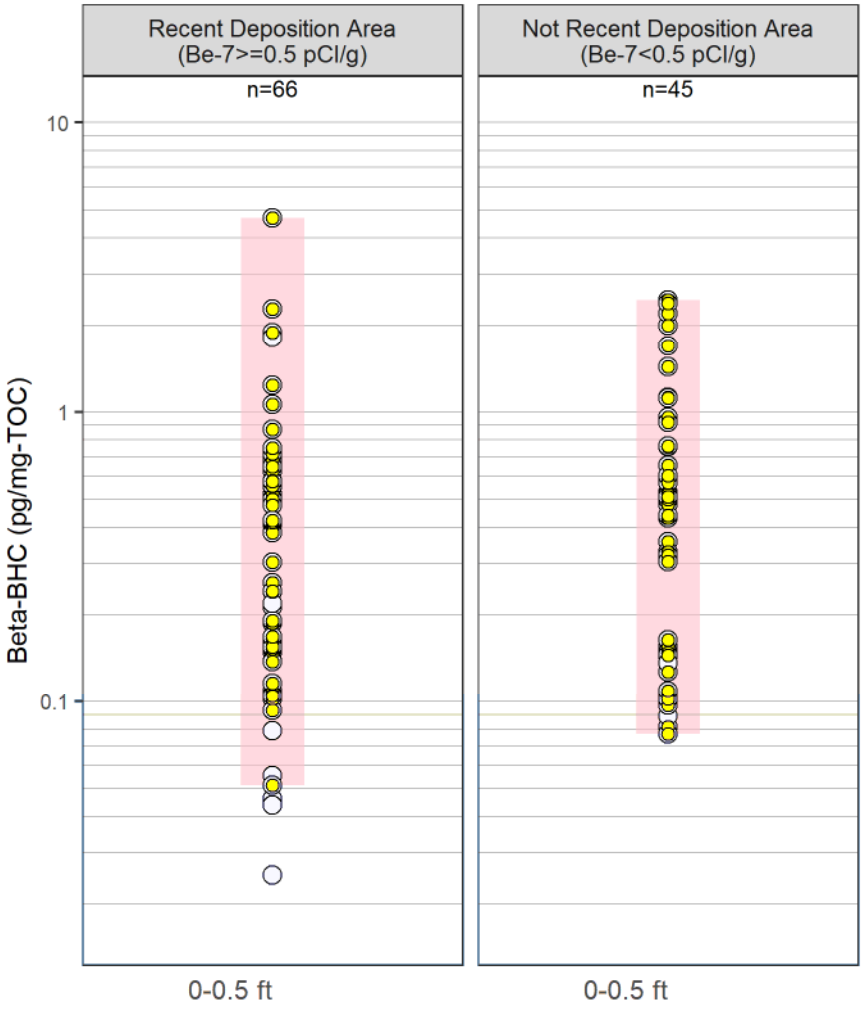
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

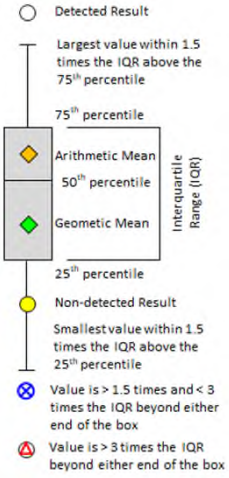
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - ALPHA-BHC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-242





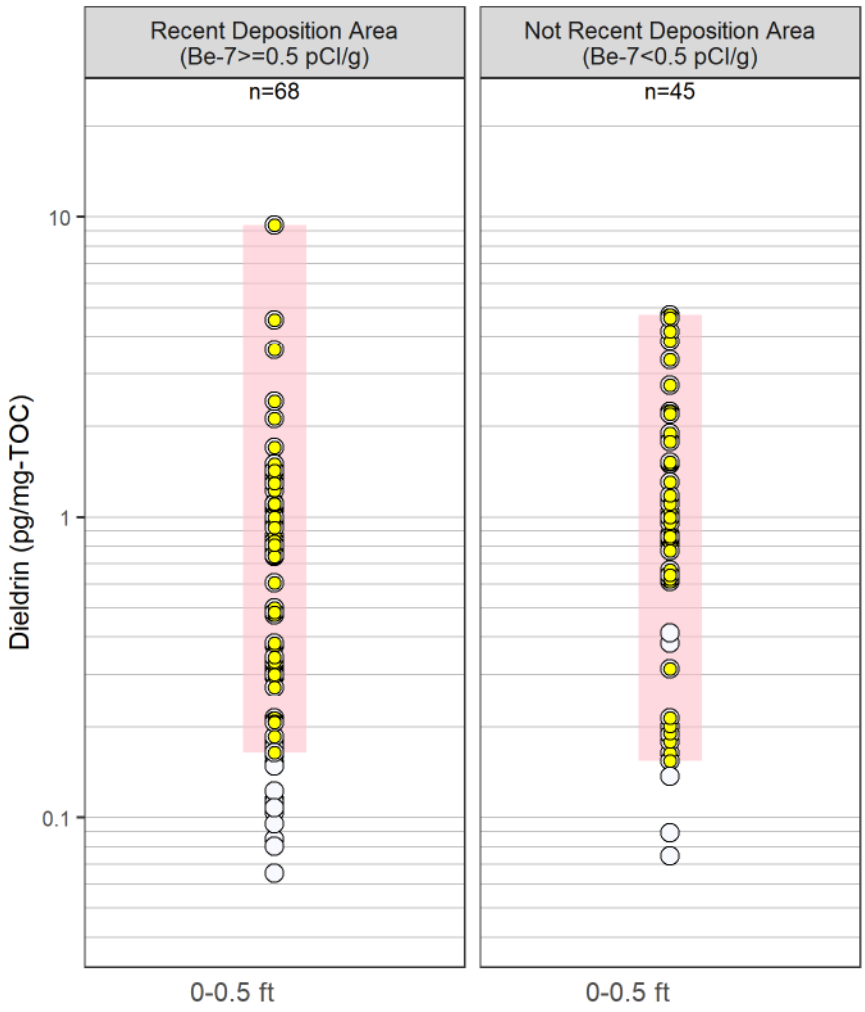
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

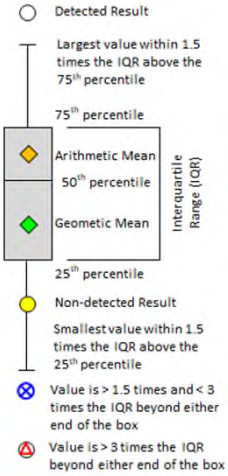
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - BETA-BHC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-243





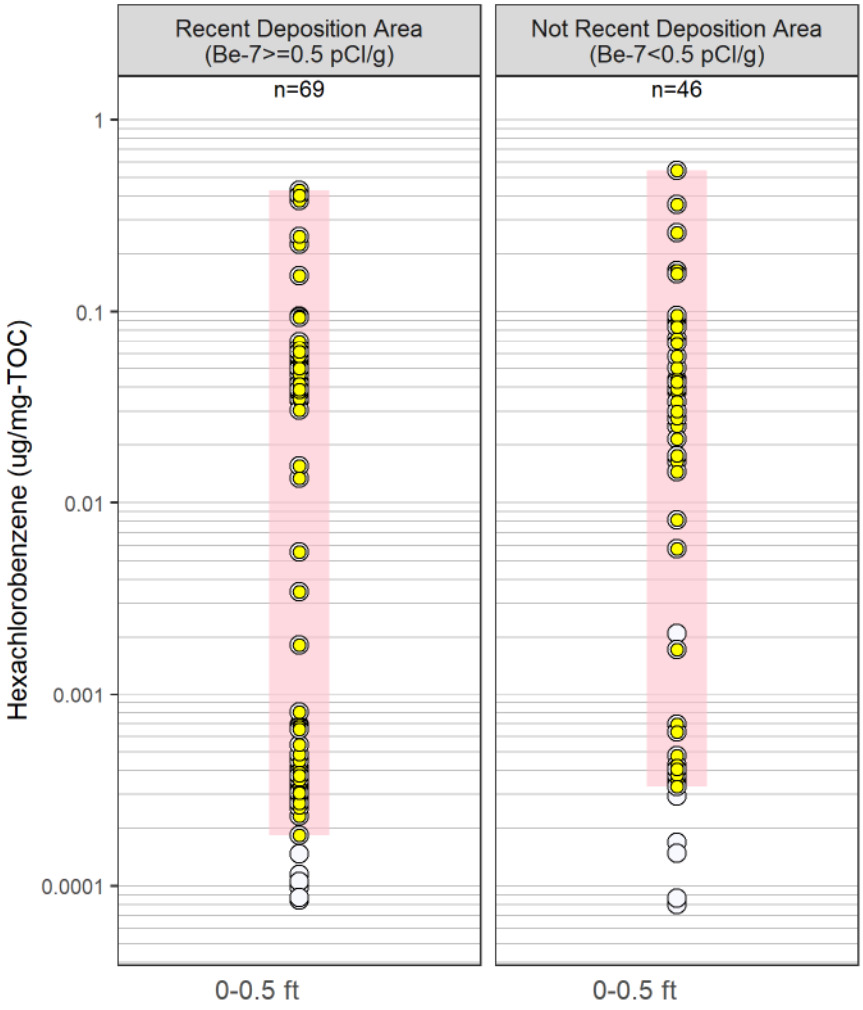
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

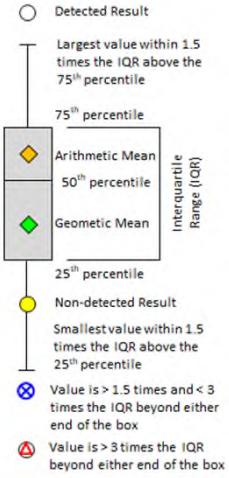
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - DIELDRIN-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-244





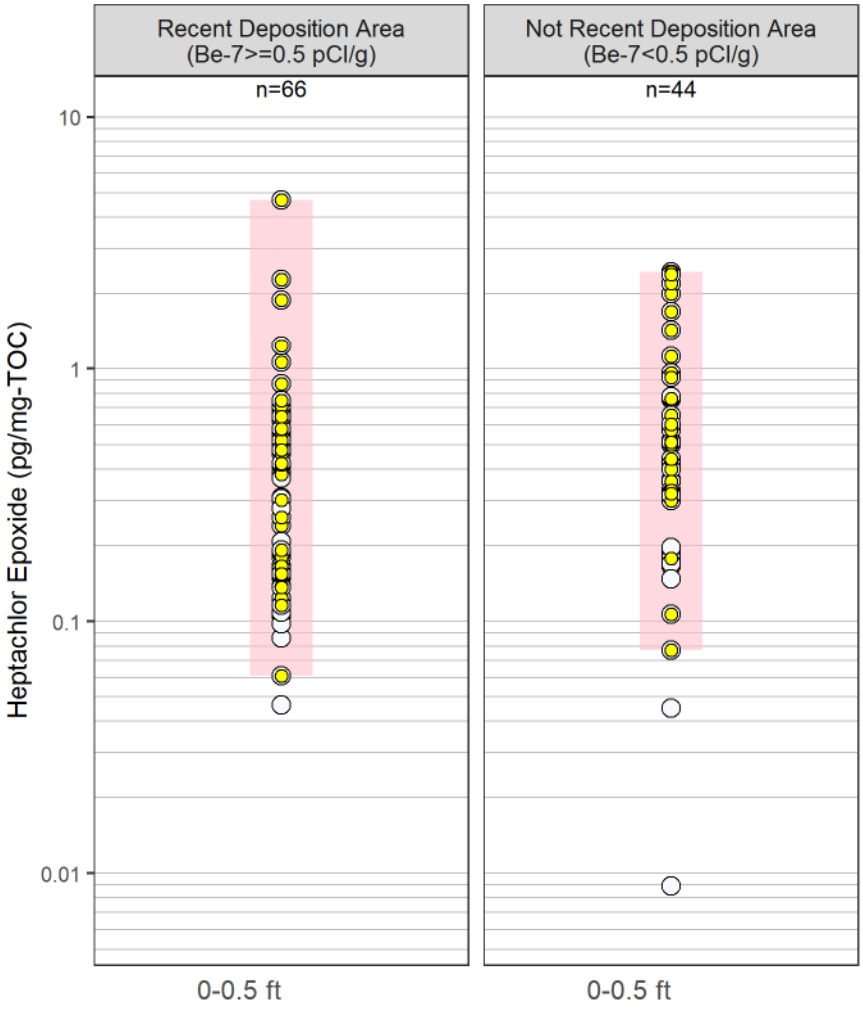
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

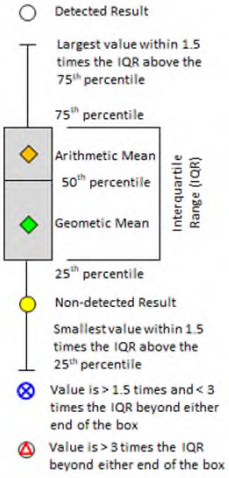
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - HEXACHLOROBENZENE-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-245





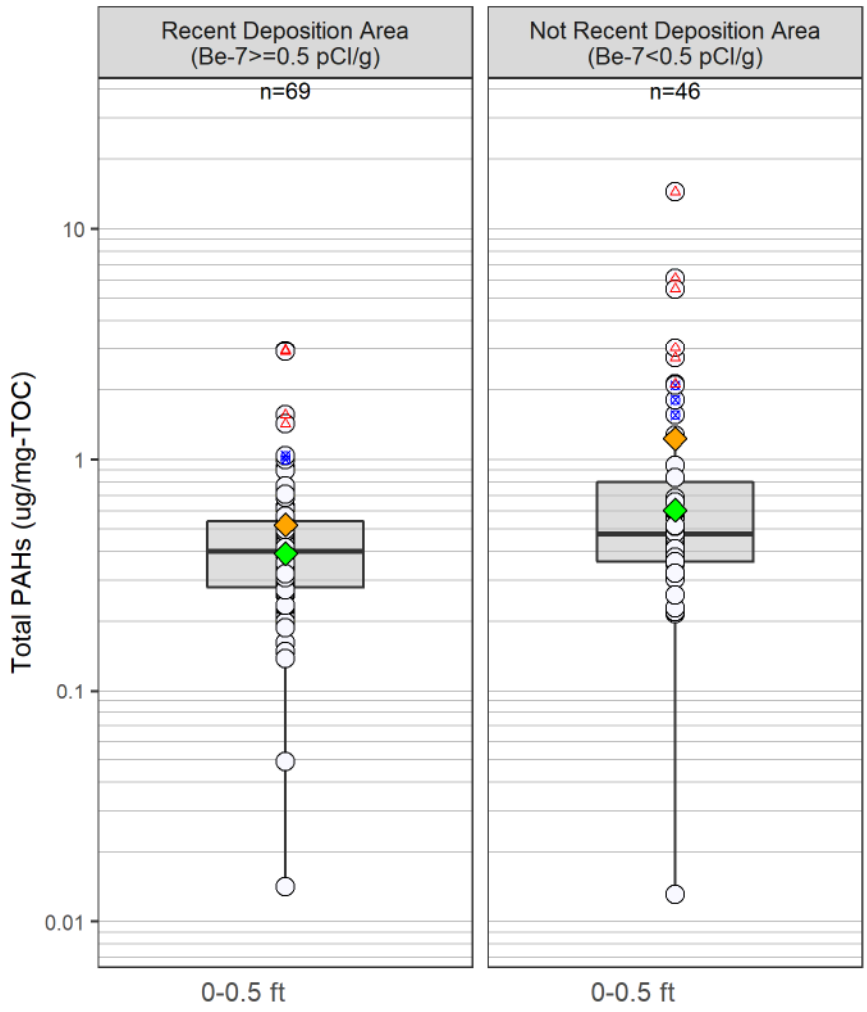
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

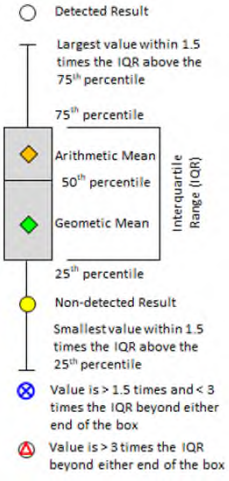
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - HEPTACHLOR EPOXIDE-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-246





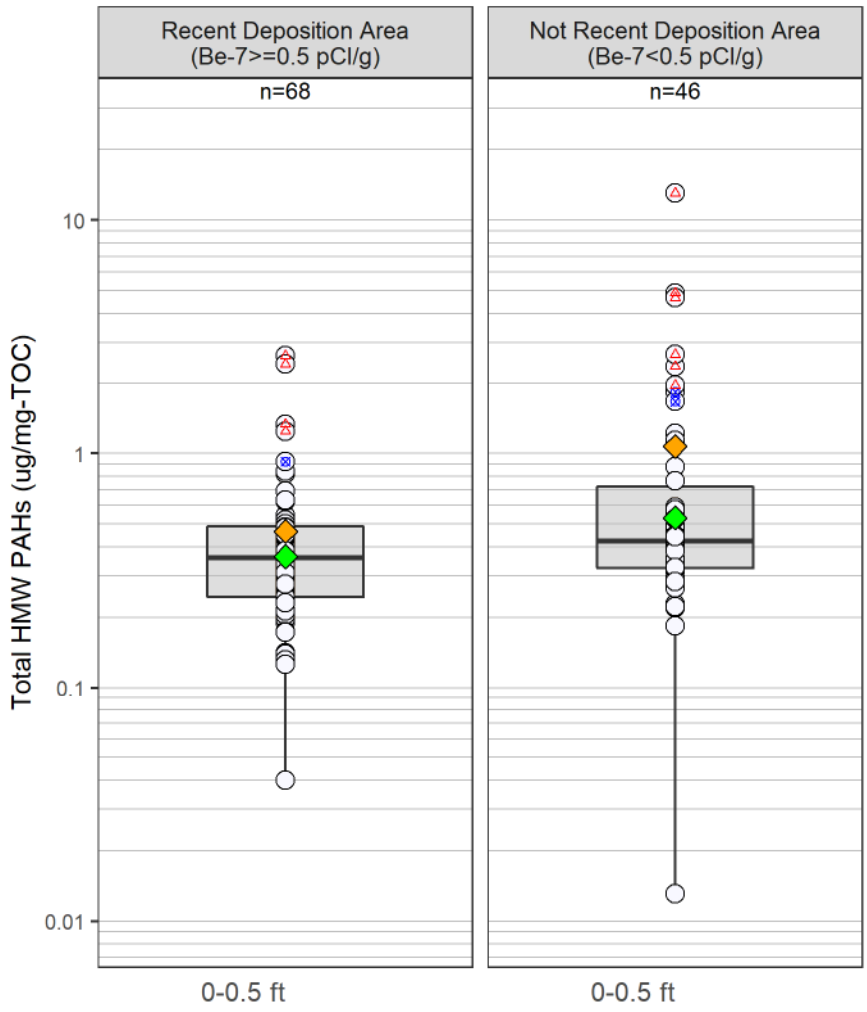
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

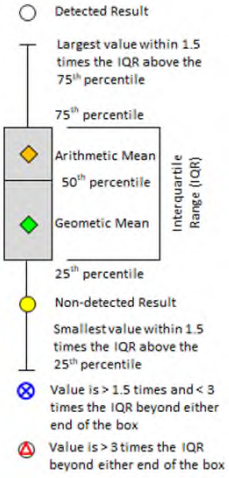
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL PAHS-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-247





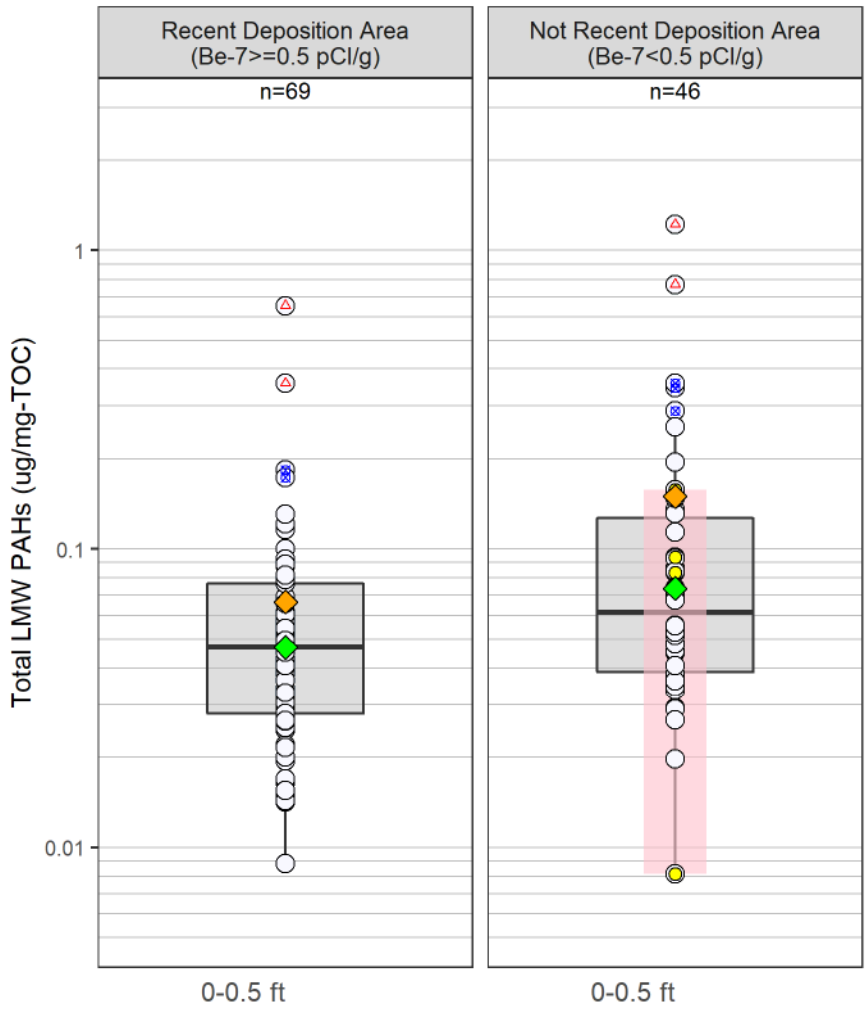
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

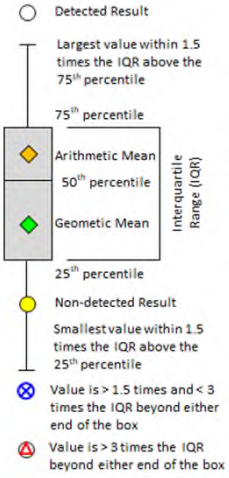
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL HMW PAHS-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-248





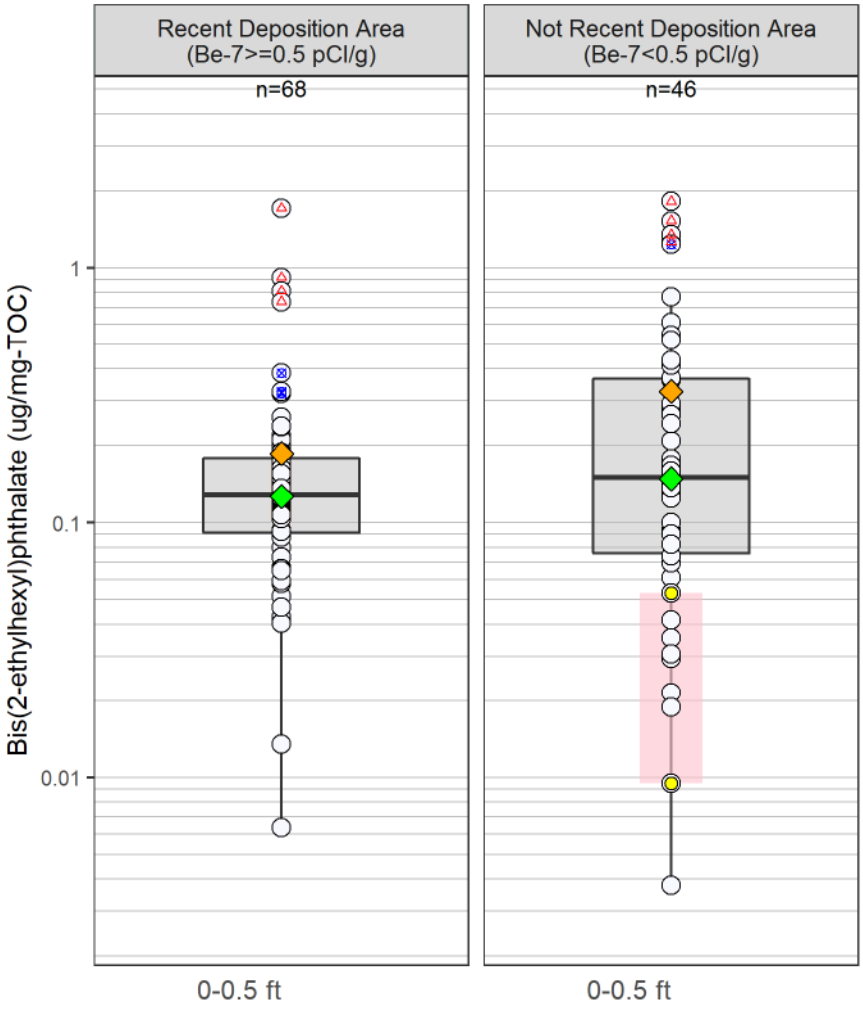
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
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Top depth >= 6.5 ft = >6.5 ft
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For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

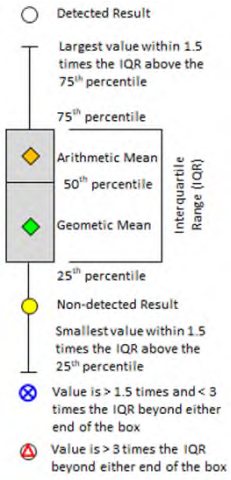
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TOTAL LMW PAHS-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-249





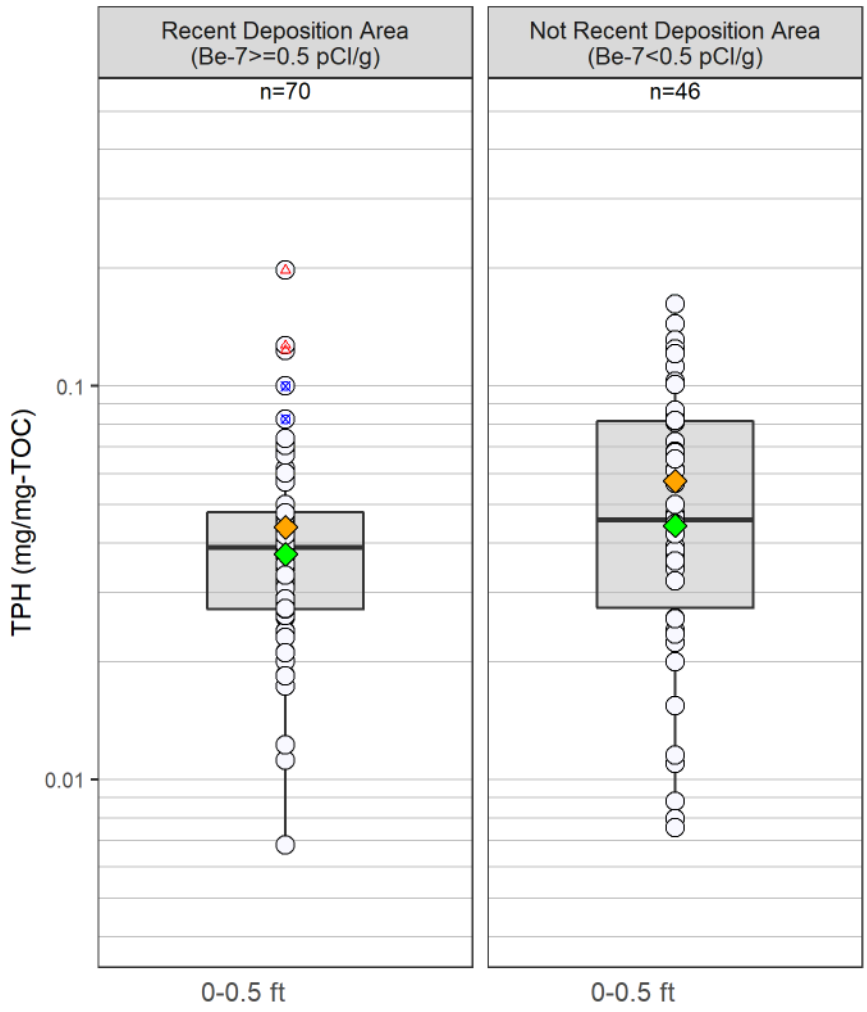
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

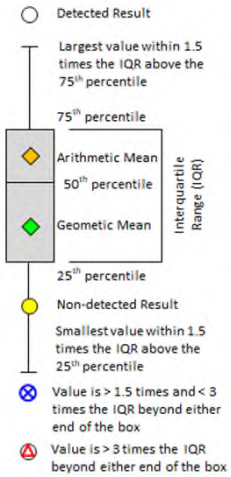
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - BIS(2-ETHYLHEXYL)PHTHALATE-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-250





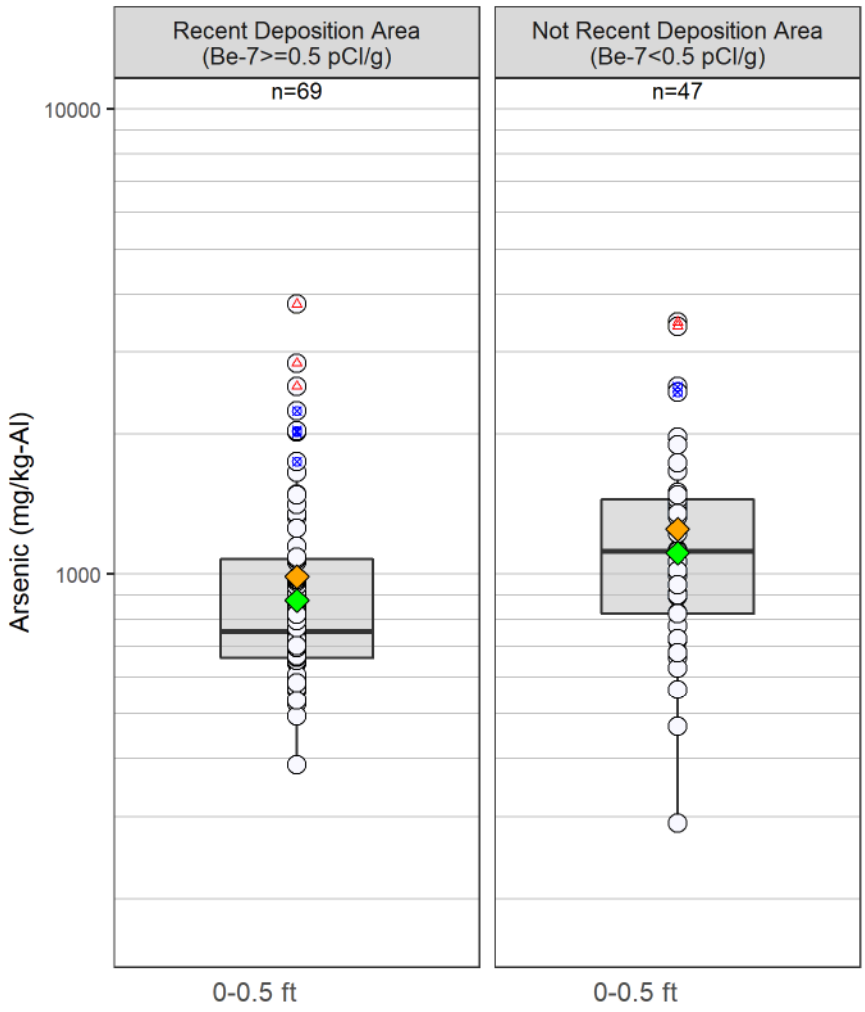
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
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Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

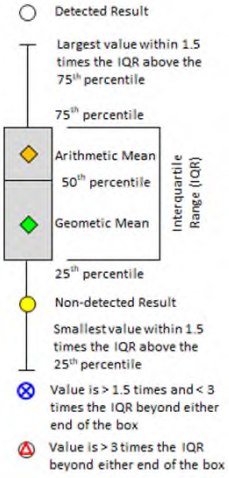
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - TPH-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-251





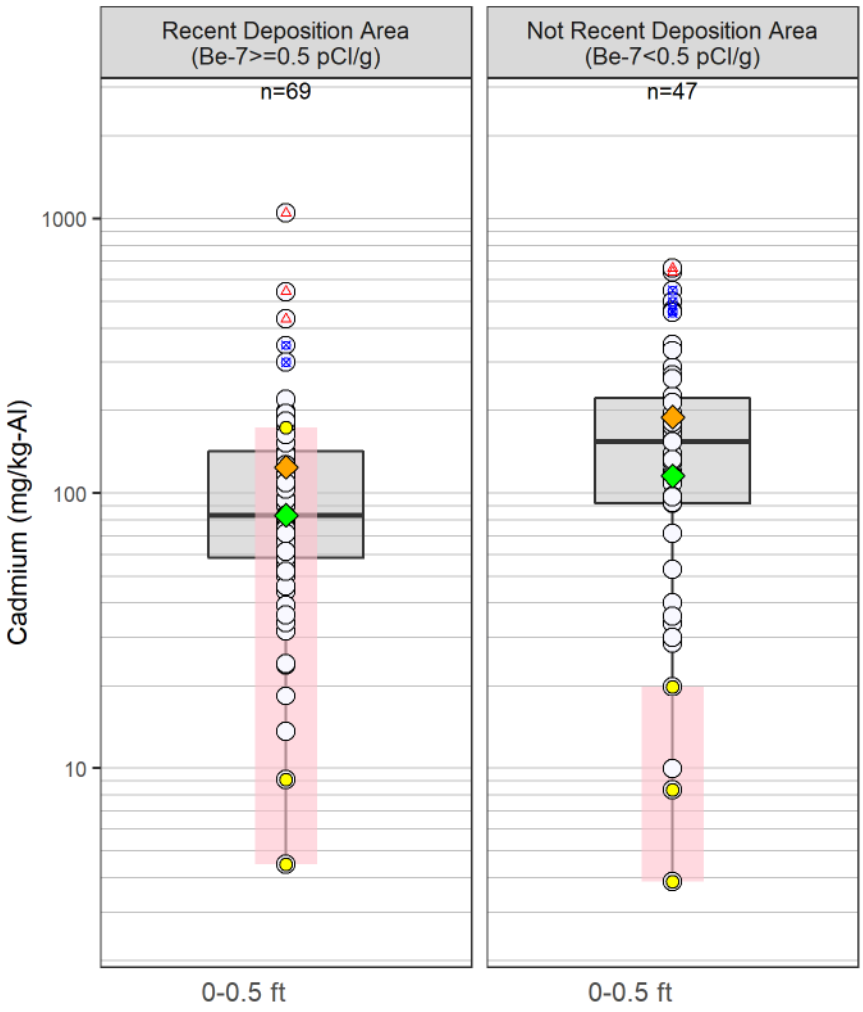
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
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For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

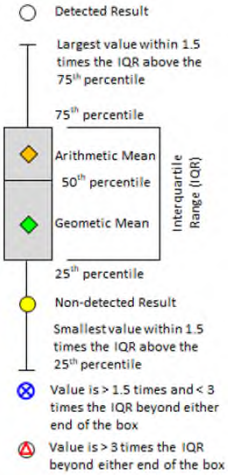
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - ARSENIC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-252





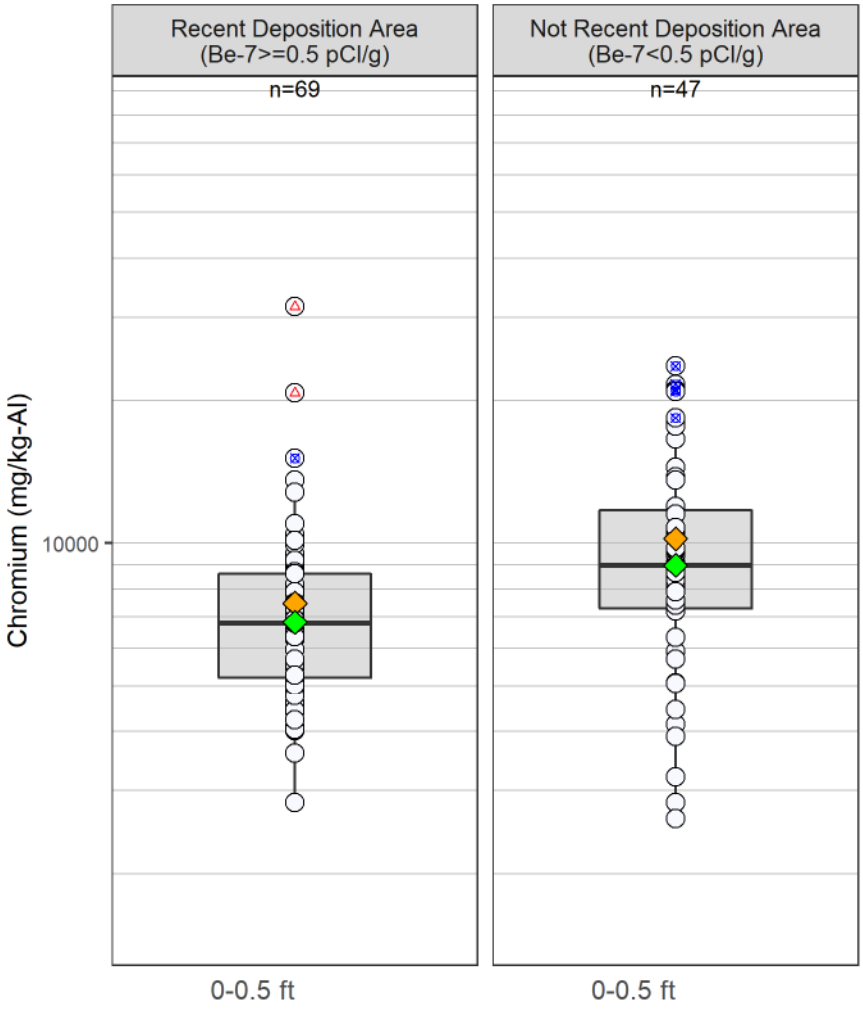
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
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Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

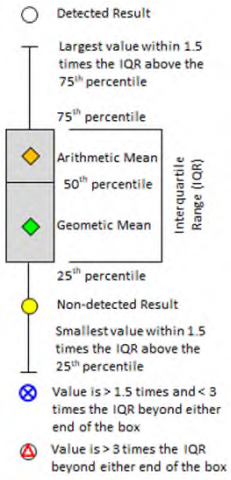
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - CADMIUM-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-253





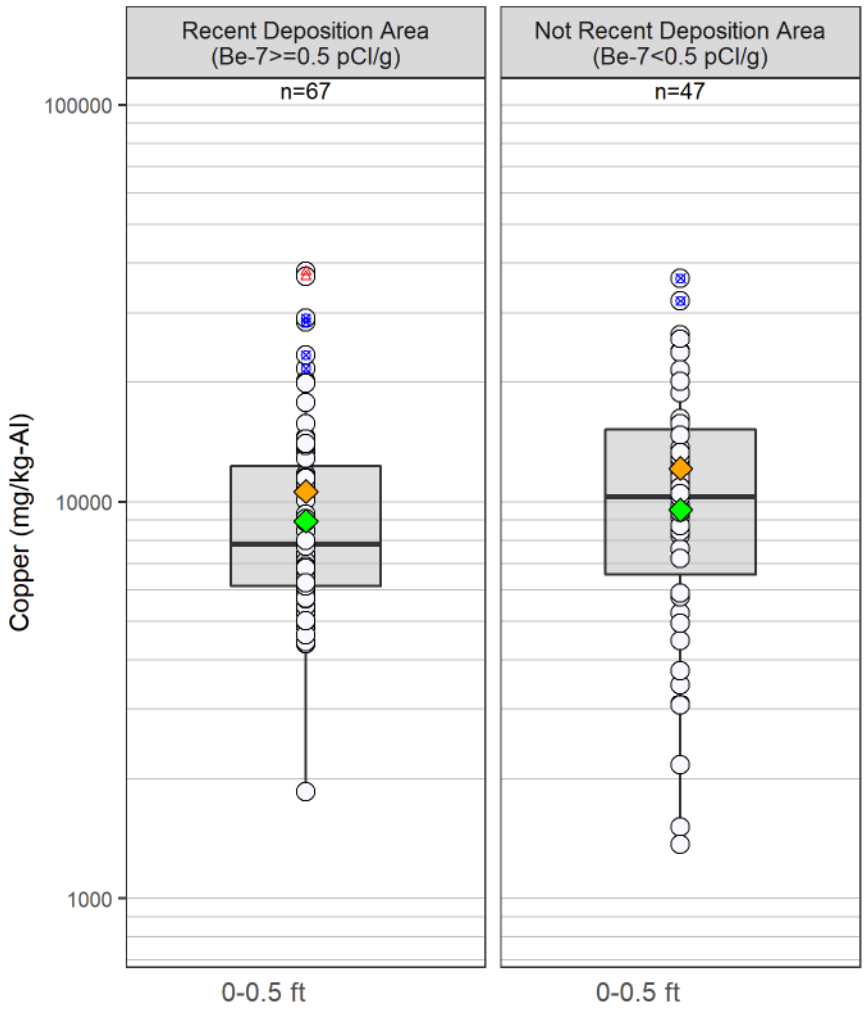
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

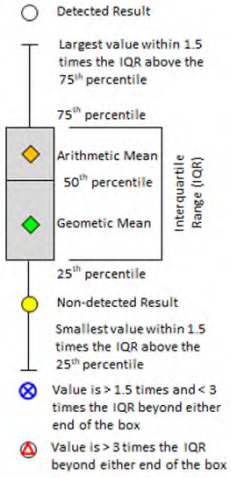
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - CHROMIUM-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-254





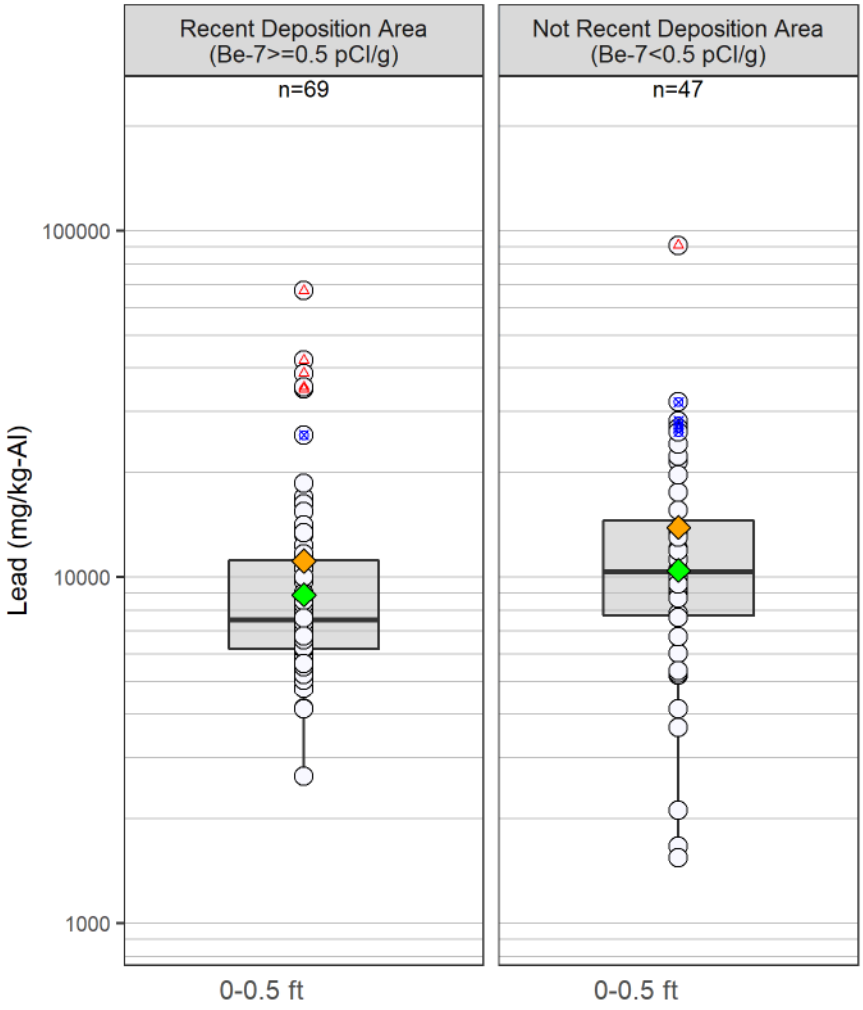
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

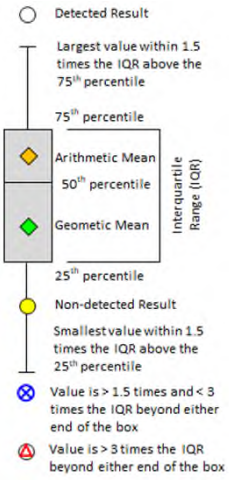
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - COPPER-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-255





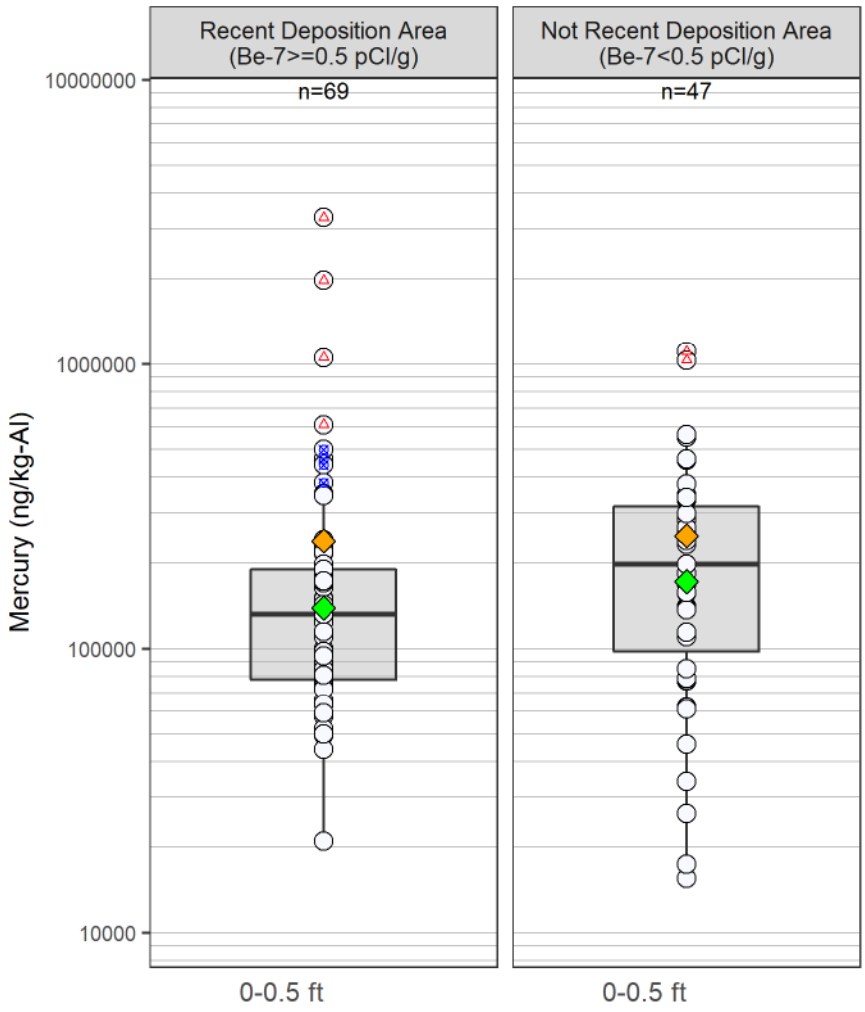
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

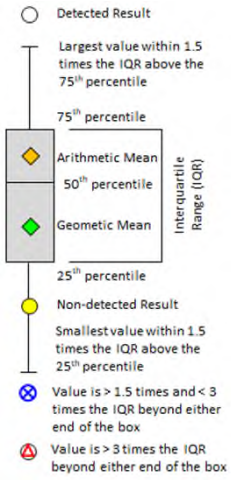
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - LEAD-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-256





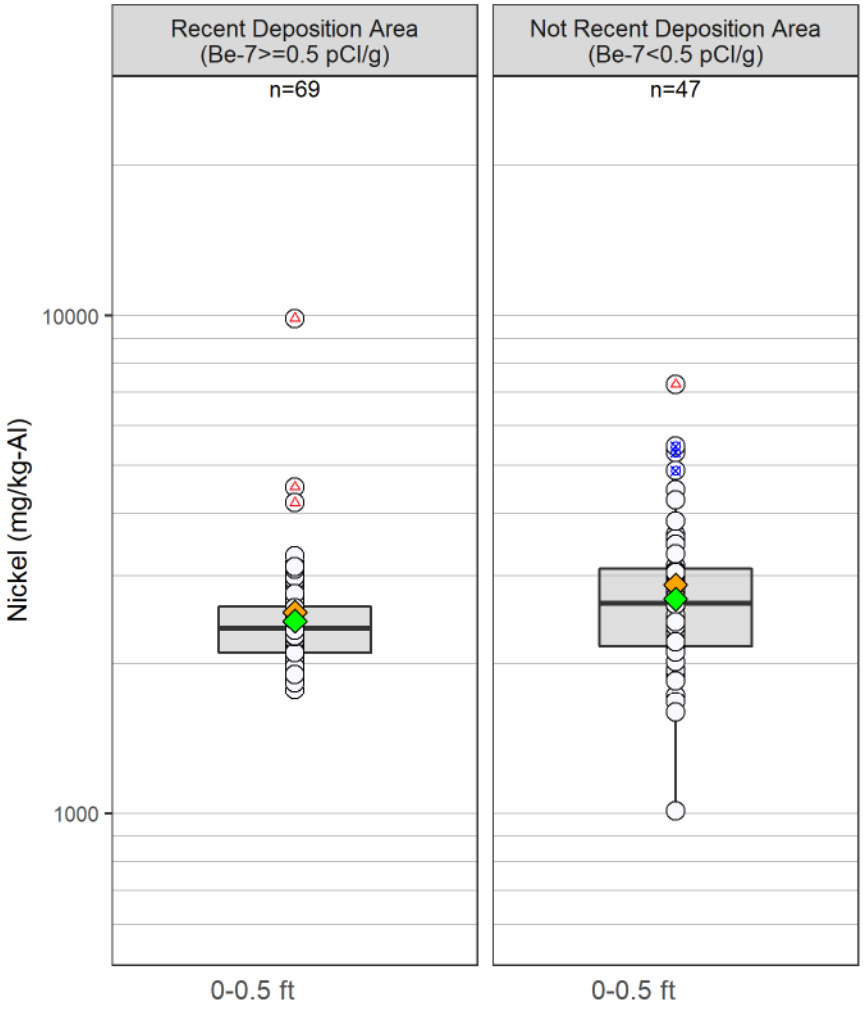
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
Top depth >= 0.5 and < 3.5 ft = 0.5-3.5 ft
Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

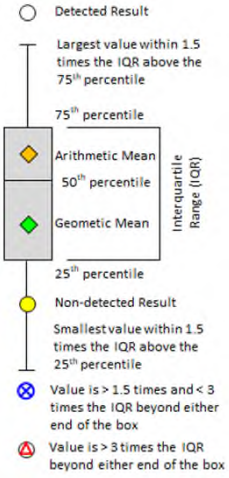
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - MERCURY-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-257





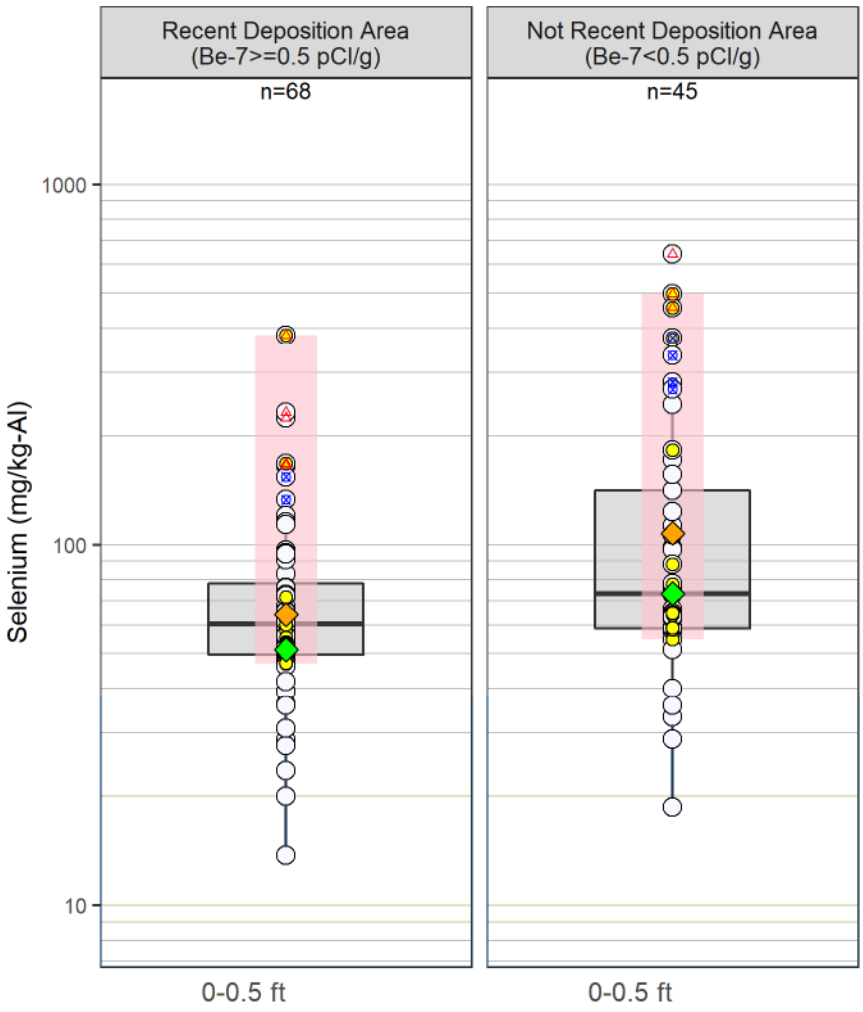
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
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For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

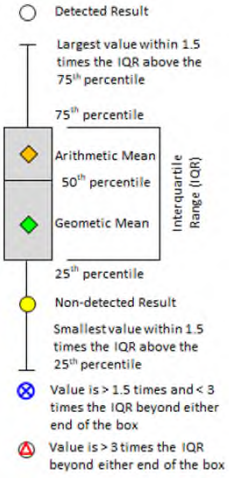
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - NICKEL-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-258





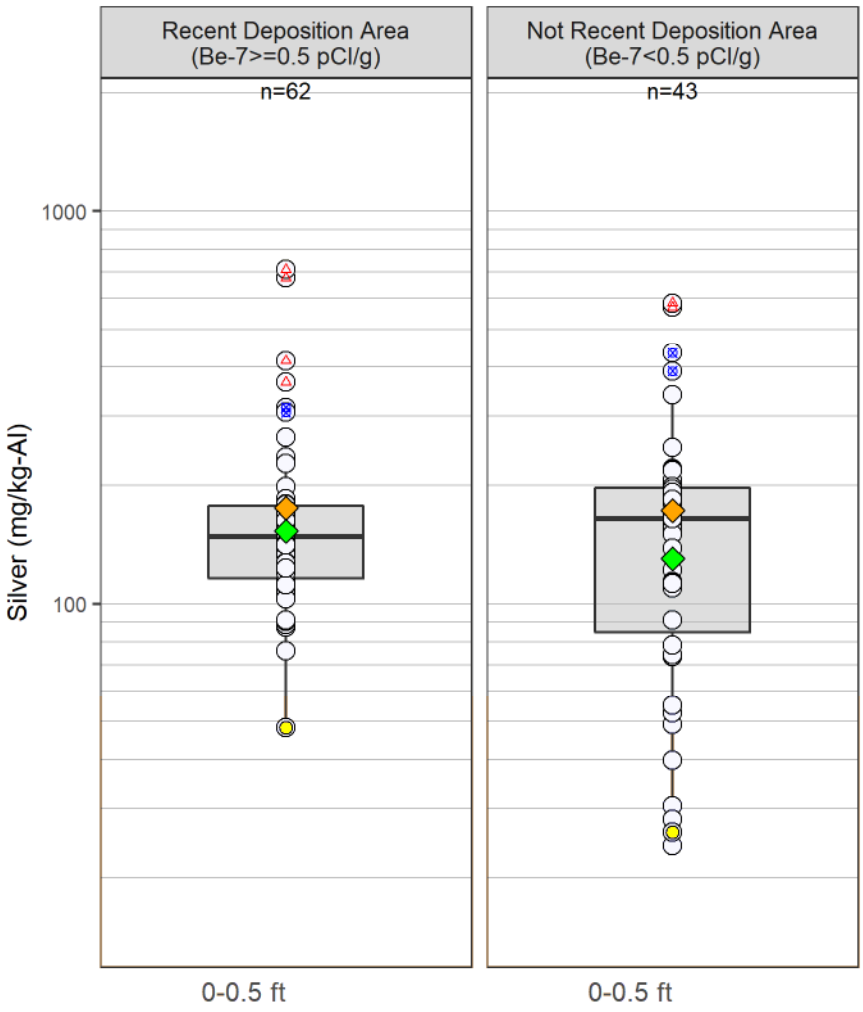
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

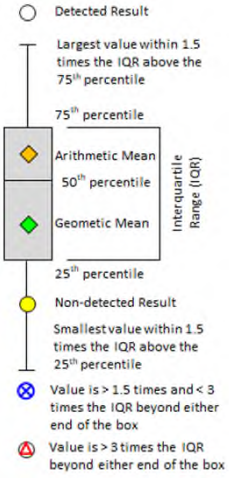
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - SELENIUM-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-259





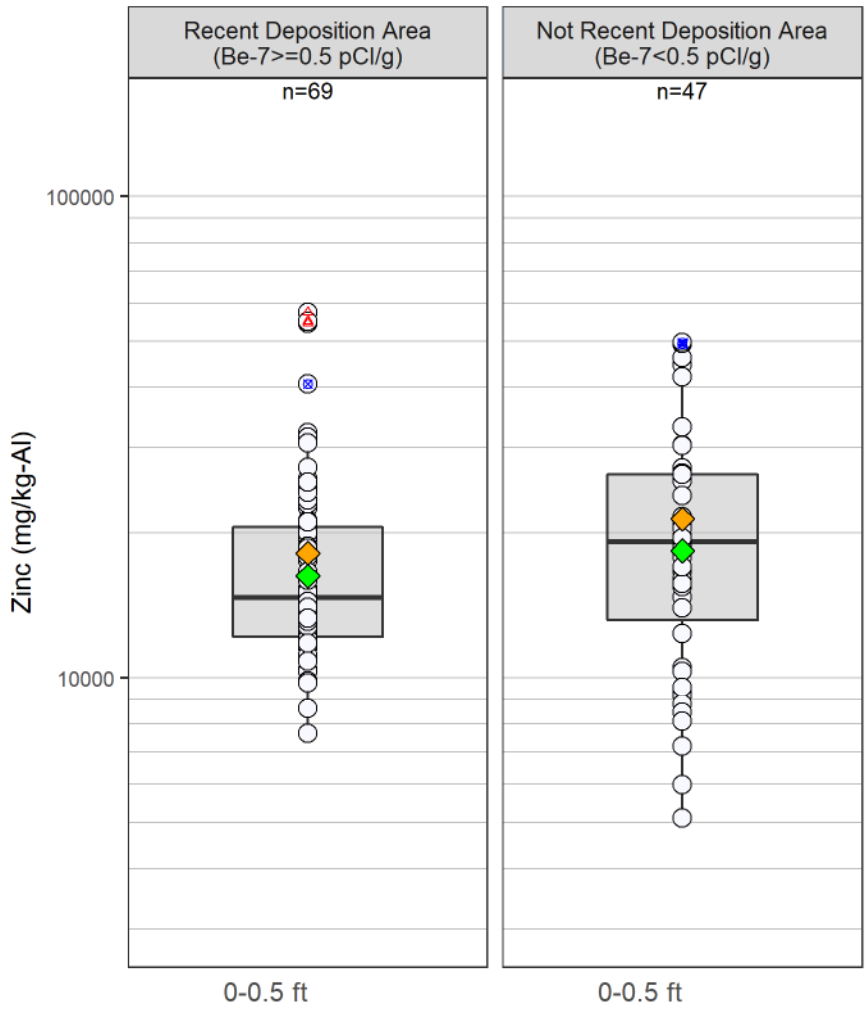
Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Top depth >= 3.5 and < 6.5 ft = 3.5-6.5 ft
Top depth >= 6.5 ft = >6.5 ft
Non-detects plotted at the quantitation limit.
For percentiles, non-detects included at the quantitation limit.
For arithmetic mean and geometric mean, non-detects included at 1/2 the quantitation limit.
Pink shaded area represents range of non-detect quantitation limits.
Percentiles/mean not estimated for n<8 and/or frequency of detection<50%.

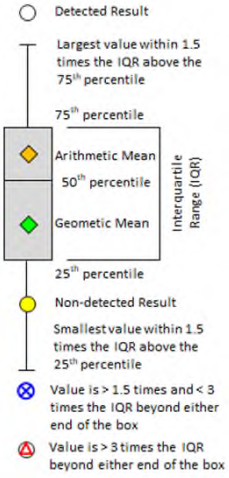
DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - SILVER-NORMALIZED

OXY Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-260





Notes:
Phase I/II = 2005 Phase I & 2007 Phase II
n = number of samples
Sample top depth used to assign depth category:
Top depth < 0.5 ft = 0-0.5 ft
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Pink shaded area represents range of non-detect quantitation limits.
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DIAMOND ALKALI SUPERFUND SITE
NEWARK BAY STUDY AREA REMEDIAL INVESTIGATION
REMEDIAL INVESTIGATION REPORT

SEDIMENT RESULTS BY SHORT-TERM DEPOSITION AREA - ZINC-NORMALIZED

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum Corporation

FIGURE
F-261