

April 19, 2018

Charles Cheng, PG
Engineering Geologist
San Diego Regional Water Quality Control Board
2375 Northside Drive, Suite 100
San Diego, CA 92108-2700

Re: Post Remedial Monitoring
San Diego Shipyard Sediment Site
Cleanup and Abatement Order No. R9-2012-0024
Geotracker Site ID No. T10000003580

Dear Mr. Cheng,

This letter is being provided on behalf of National Steel and Shipbuilding Company (NASSCO) and BAE Systems San Diego Ship Repair Inc. (BAE Systems), to the San Diego Regional Water Quality Control Board (Water Board) in compliance with Section E of the Water Board's Cleanup and Abatement Order (CAO) No. R9-2012-0024 for the San Diego Shipyard Sediment Site.

During preparation for the 2018 and 2021 (Years 2 and 5 post-remediation) Remedial Performance Monitoring, as defined in the Post-Remedial Monitoring Work Plan (PRMP), a reconnaissance of proposed sampling locations was performed that resulted in the following clarifications to monitoring efforts.

Clarifications to Monitoring Efforts

Inaccessible Sampling Locations

Several sampling locations identified in the PRMP are now inaccessible due to new structures or vessel moorage changes. Samples will be relocated per Section 2.1 of the PRMP, with the new sampling locations located as close to the target coordinates as possible. Attached are figures showing the new sampling locations and a table with the revised sampling coordinates. Note that these locations may be further modified in the field, if necessary. The new sampling locations are characteristically equivalent to the target coordinate locations, resulting in no change to the Thiessen polygons or subsequent composite chemistry aliquot.

Several locations are also inaccessible for a vessel-deployed double van-veen sampler. If practical, we will attempt to sample these areas using hand-deployed equipment from a skiff or from the existing piers. If we are unable to collect a sample meeting acceptance criterion in the PRMP, we will sample

as close as possible within the Thiessen polygon, using our sampling vessel and double van-veen sampler.

Consolidated Substrate

A significant amount of dredging has occurred since 2012 that excavated into the Bay Point Formation. If our sampling equipment encounters this hard, and sometimes impenetrable, material or gravelly sand (placed as part of the remedial efforts), we may not be able to collect sufficient sediment volume to meet acceptance criteria in the PRMP. In such instances, it will be interpreted that minimal or no recent bay sediments are present at these locations. We will conduct the following if these instances occur:

- Make up to two more attempts at sampling from the selected target location (resulting in a total of three attempts). Refusal is defined as the inability to obtain an acceptable sediment sample (per PRMP criteria) after three attempts at a single location.
- If refusal is met at the target sampling location, make additional attempts to collect a sample at two different locations within the same Thiessen polygon (for a total of three attempts at each new sampling station).
- If refusal is met at all three attempted locations (nine attempts) within the Thiessen polygon, consider polygon unsampleable.

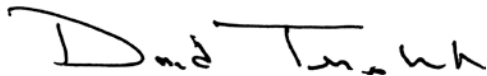
For initial surface weighted average concentrations (SWAC) calculations for any unsampleable polygon, we will conservatively assume that Water Board-approved background concentrations apply to the polygon area (consistent with the methods used for the San Diego Shipyard Draft Technical Report for the post-remedial SWAC calculation). However, we reserve the right to use other data showing concentrations of chemicals (if available) in the unsampleable polygons, in which case we will detail our final means and methods in the Annual Post-Remedial Progress Report.

Chollas Creek Sampling Location

Sample NA22, located at the mouth of Chollas Creek, will not be included in the Remedial Performance Monitoring. The CAO (per Attachments 2 and 6) intended this sample to be excluded from consideration for remediation and long-term monitoring because it falls within an area that is being evaluated as part of the TMDLs for Toxic Pollutants in Sediment at the Mouth of Chollas Creek TMDL. This sampling location is not considered part of the Shipyard Sediment Site for purposes of the CAO. A separate investigation for the Mouth of Chollas Creek is ongoing, unrelated to the CAO process.

If you have any questions concerning these clarifications, please do not hesitate to contact me at 206-910-4279 or at dtempleton@anchorqea.com. Otherwise, we are on schedule to conduct the first Remedial Performance Monitoring event in July 2018.

Sincerely,

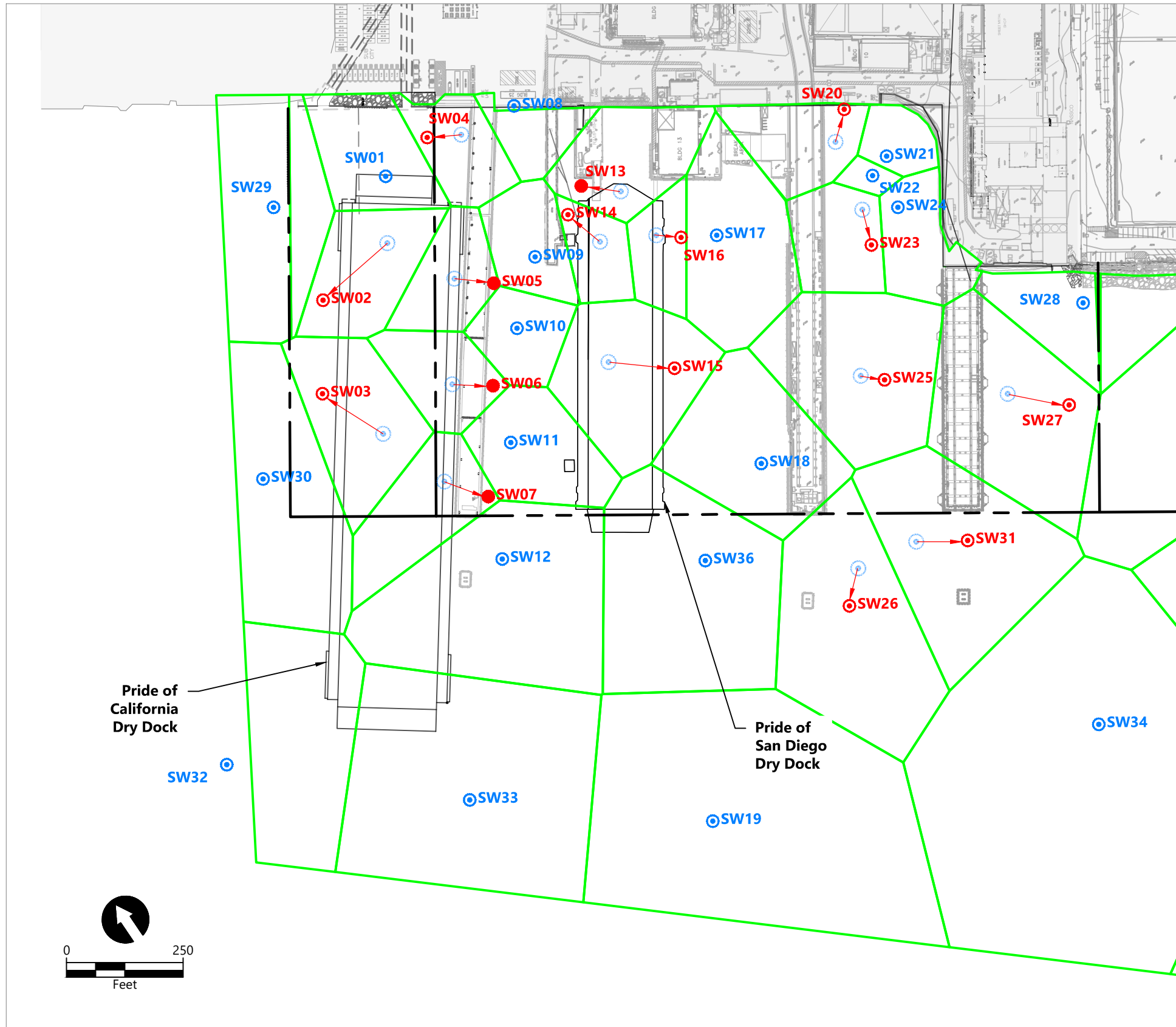
A handwritten signature in black ink that reads "David Templeton". The signature is written in a cursive style with a large, stylized 'D' and 'T'.

David Templeton
Partner

cc: Shaun Halvax, BAE Systems
Sara Giobbi, NASSCO
Michael Palmer, San Diego Bay Environmental Restoration Fund

Attachments

- Figure 1 San Diego Shipyards Long Term Monitoring – Updated Sampling Locations (BAE Systems San Diego Ship Repair)
- Figure 2 San Diego Shipyards Long Term Monitoring – Updated Sampling Locations (NASSCO)
- Table 1 Updated Sampling Locations for Long-Term Monitoring



NOTES:

1. SW02, SW03, SW14, SW15, and SW16 are located under existing drydocks, and are therefore inaccessible.
2. SW04 is located under new concrete wharf structure of drydock, and is therefore inaccessible.
3. SW05, SW06, and SW07 are located between the drydock and Pier 1. Attempt to collect using hand deployed equipment (ponar). If not successful, move to Pier 1 South.
4. SW13 has no access to sampling vessel. Attempt to collect using hand deployed equipment (ponar). If not successful, move north.
5. SW20, SW23, SW25, SW26, SW27, and SW31 will be inaccessible due to vessels moored at Pier 3 South, Pier 4 North, and Pier 4 South during the sampling event.

SOURCE: Upland topography from Digital Mapping, Inc., dated September 2009, and supplemented by Environmental Data Solutions survey dated April 13, 2013.

HORIZONTAL DATUM: California State Plane, Zone 6, NAD83, U.S. Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

LEGEND:

- Thiessen Polygon
- Sampling Location (Relocated)
- Sampling Location (Original Location, Shaded if Being Relocated)
- Sampling Location (Alternate Location, if Necessary)

NOTES:

1. NA17 located on submerged concrete, therefore will be unable to sample.
2. NA22 has been removed from the long term monitoring as it falls within an area being evaluated as part of the TMDLs for Toxic Pollutants in Sediment at the Mouth of Chollas Creek TMDL, and is not considered part of the Shipyard Sediment Site for purposes for the CAO.
3. NA23 inaccessible due to presence of drydock walkway.

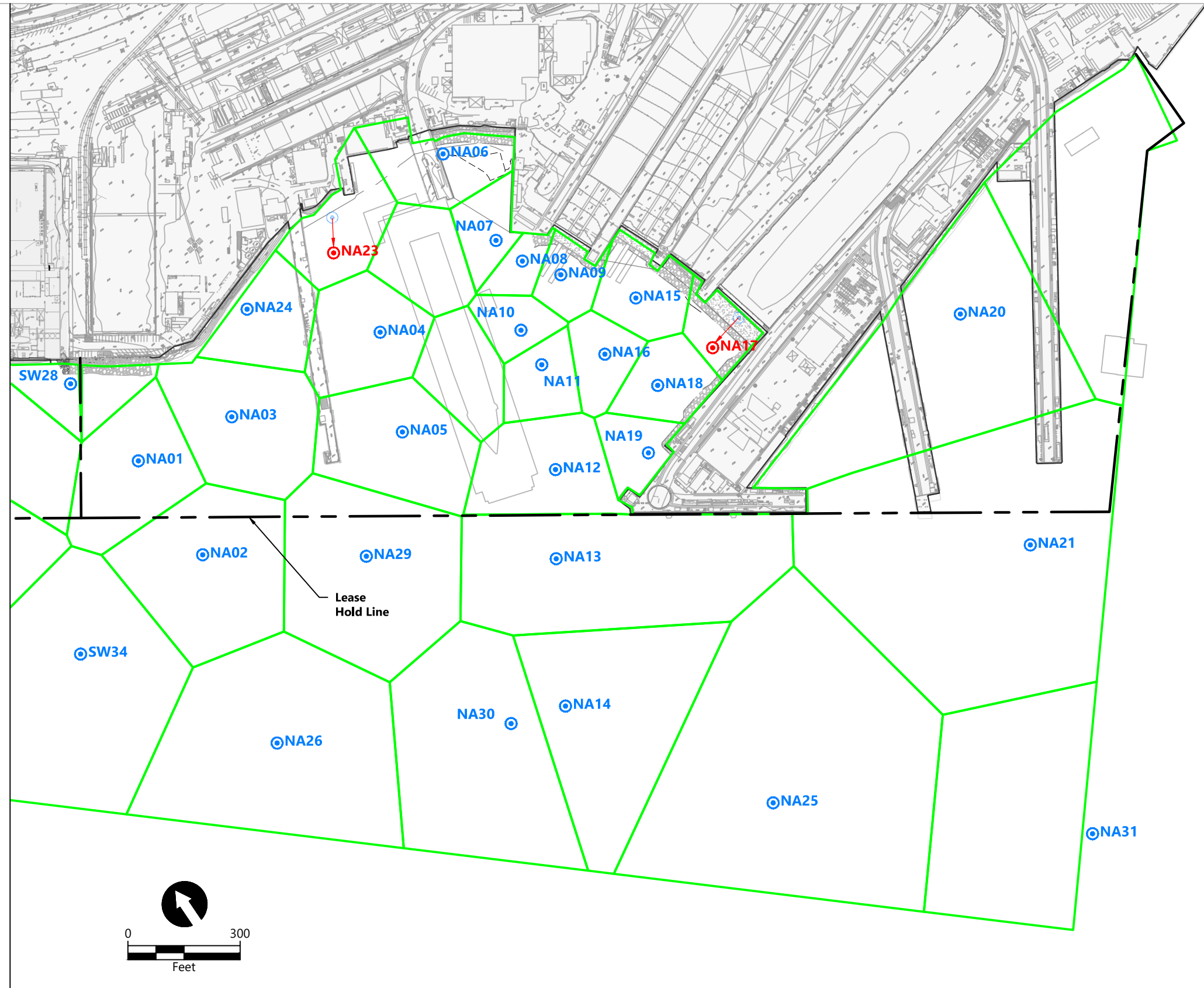
SOURCE: Upland topography from Digital Mapping, Inc., dated September 2009, and supplemented by Environmental Data Solutions survey dated April 13, 2013.

HORIZONTAL DATUM: California State Plane, Zone 6, NAD83, U.S. Feet.

VERTICAL DATUM: Mean Lower Low Water (MLLW).

LEGEND:

- Thiessen Polygon
- ⊙# Sampling Location (Relocated)
- ⊙# Sampling Location (Original Location, Shaded if Being Relocated)



Publish Date: 2018/04/16 12:16 PM | User: mpratschner
Filepath: K:\Projects\1001-San Diego Bay Environmental\Post Remedy LT Monitor\1001-RP-002 LONG TERM_NASSCO.dwg FIG 2



Figure 2
Updated Sample Locations (NASSCO)

San Diego Shipyards Long Term Monitoring
San Diego Shipyard Sediment Site

Table 1
Updated Sampling Locations for Long-Term Monitoring

Sample ID	Original Target Latitude	Original Target Longitude	Relocated/Alternate Target Latitude	Relocated/Alternate Target Longitude
NA01	32° 41.365'	117° 08.565'	---	---
NA02	32° 41.315'	117° 08.564'	---	---
NA03	32° 41.359'	117° 08.512'	---	---
NA04	32° 41.354'	117° 08.423'	---	---
NA05	32° 41.312'	117° 08.442'	---	---
NA06	32° 41.404'	117° 08.344'	---	---
NA07	32° 41.359'	117° 08.346'	---	---
NA08	32° 41.345'	117° 08.340'	---	---
NA09	32° 41.331'	117° 08.328'	---	---
NA10	32° 41.320'	117° 08.361'	---	---
NA11	32° 41.302'	117° 08.362'	---	---
NA12	32° 41.261'	117° 08.386'	---	---
NA13	32° 41.228'	117° 08.411'	---	---
NA14	32° 41.171'	117° 08.450'	---	---
NA15	32° 41.304'	117° 08.302'	---	---
NA16	32° 41.291'	117° 08.331'	---	---
NA17	32° 41.272'	117° 08.263'	32° 41.268'	117° 08.283'
NA18	32° 41.267'	117° 08.317'	---	---
NA19	32° 41.244'	117° 08.341'	---	---
NA20	32° 41.219'	117° 08.165'	---	---
NA21	32° 41.117'	117° 08.201'	---	---
NA22	32° 41.211'	117° 08.081'	---	---
NA23	32° 41.407'	117° 08.411'	32° 41.395'	117° 08.421'
NA24	32° 41.395'	117° 08.474'	---	---
NA25	32° 41.085'	117° 08.387'	---	---
NA26	32° 41.228'	117° 08.586'	---	---
NA29	32° 41.275'	117° 08.493'	---	---
NA30	32° 41.178'	117° 08.478'	---	---
NA31	32° 40.996'	117° 08.257'	---	---
SW01	32° 41.549'	117° 08.743'	---	---
SW02	32° 41.533'	117° 08.755'	32° 41.529'	117° 08.784'
SW03	32° 41.488'	117° 08.791'	32° 41.507'	117° 08.801'
SW04	32° 41.547'	117° 08.715'	32° 41.551'	117° 08.725'

Sample ID	Original Target Latitude	Original Target Longitude	Relocated/Alternate Target Latitude	Relocated/Alternate Target Longitude
SW05	32° 41.514'	117° 08.743'	32° 41.507'	117° 08.733'
SW06	32° 41.489'	117° 08.763'	32° 41.483'	117° 08.752'
SW07	32° 41.468'	117° 08.783'	32° 41.457'	117° 08.774'
SW08	32° 41.545'	117° 08.695'	---	---
SW09	32° 41.506'	117° 08.716'	---	---
SW10	32° 41.492'	117° 08.735'	---	---
SW11	32° 41.467'	117° 08.758'	---	---
SW12	32° 41.440'	117° 08.781'	---	---
SW13	32° 41.509'	117° 08.680'	32° 41.516'	117° 08.691'
SW14	32° 41.500'	117° 08.696'	32° 41.511'	117° 08.700'
SW15	32° 41.470'	117° 08.715'	32° 41.458'	117° 08.698'
SW16	32° 41.493'	117° 08.679'	32° 41.488'	117° 08.672'
SW17	32° 41.483'	117° 08.662'	---	---
SW18	32° 41.422'	117° 08.692'	---	---
SW19	32° 41.346'	117° 08.771'	---	---
SW20	32° 41.487'	117° 08.612'	32° 41.493'	117° 08.603'
SW21	32° 41.476'	117° 08.600'	---	---
SW22	32° 41.473'	117° 08.607'	---	---
SW23	32° 41.467'	117° 08.617'	32° 41.457'	117° 08.620'
SW24	32° 41.462'	117° 08.606'	---	---
SW25	32° 41.428'	117° 08.648'	32° 41.423'	117° 08.642'
SW26	32° 41.383'	117° 08.684'	32° 41.375'	117° 08.693'
SW27	32° 41.400'	117° 08.610'	32° 41.388'	117° 08.595'
SW28	32° 41.410'	117° 08.572'	---	---
SW29	32° 41.559'	117° 08.780'	---	---
SW30	32° 41.497'	117° 08.833'	---	---
SW31	32° 41.380'	117° 08.663'	32° 41.372'	117° 08.648'
SW32	32° 41.435'	117° 08.896'	---	---
SW33	32° 41.389'	117° 08.835'	---	---
SW34	32° 41.308'	117° 08.646'	---	---
SW36	32° 41.408'	117° 08.725'	---	---