

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION**

CENTRE PLAZA DRIVE
MONTEREY PARK, CA 91754-2156
(213) 266-7500



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NAVSTA LONG BEACH
SSIC #5090.3

Lt. Commander J.L. Snyder
Civil Engineer Corps, U.S. Navy
Long Beach Naval Station
Long Beach, California 90822-5000

**RWQCB - LA COMMENTS ON DRAFT SITE INSPECTION REPORT, NAVAL
STATION, LONG BEACH, CALIFORNIA (File No. 90-76)**

We have reviewed the referenced documents, received July 14, 1992,
and have the following comments:

1. Paragraph 1 of page 3-29 states that the flow in the Silverado Aquifer is to the northeast, largely controlled by pumping. What is the purpose of the pumped water and is the extracted water increasing in salinity?
2. The last paragraph of page 5-1 states that the harbor sediment sampling locations were selected to characterize potential contamination from storm sewer outfalls. The study should also characterize sediment transport from the drydock areas and any disposal operations that have taken place at the end of Pier E.
3. Monitoring Well Installation, section 5.1.5, describes the drilling of boreholes drilled to ~7 feet below the water table and the setting of screens were ~3 feet above the observed water table. Due to the variability of the soils at the water table, the slot size and the proper filter pack sand should be determined at the time of drilling.
4. Section 5.1.14, Investigation-Generated Waste Management, states that waste was stored temporarily at the staging area. The type of storage should be described.
5. Section 5.2.3 (Geotechnical Testing) states that six soil samples (from Borings B-24, B27, B-28, B-43, B-44 and B-45) were sent for analysis of geotechnical parameters. Locations for borings 24-45 were not provided. Additionally, Appendix F contained the results of 11 analyses was done for the SI; the six samples listed above and one sample each from sites 2, 6, 10, 12, and 19. The

results, listed below, show numerous discrepancies between what the geologist listed on the boring log and what was determined by geotechnical analysis. Provide a location for the six samples and explain the discrepancies in descriptions.

SAMPLE NUMBER	GEOLOGIST DESCRIPTION	GEOTECHNICAL DESCRIPTION
ST02-02G	SILT WITH SAND (ML)	ML
ST06-06G	SILTY SAND (SM)	SP
ST10-03G	SANDY SILT (ML)	SP
ST12-01G	CLAYEY GRAVEL WITH SAND (GC)	GP
ST19-03G	SANDY SILT (ML)	SP
24		SM
27		SP
28		SP-SM
43		SM
44		SM
45		SM

6. Section 6.2.3.1 details the field observations for Sites 1 and 2. The borings at these sites were "placed near the perimeter because the highest potential for encountering groundwater contamination would most likely be on the ocean side of the Mole since there would be a slight hydraulic gradient from the center of the Mole outward toward the surrounding ocean waters." Site 4, also on the Mole, has boring locations that are not only not within the site boundaries, but considerably upgradient from the site. Include rationale for the selection of these borings.
7. Section 6.4.2 indicated that one type of waste deposited at Site 4 (6.4.2) was sandblast grit. Expected analyses for the organotins could not be found in Appendix D, Analytical Results.
8. Section 6.2.3.2.1 discusses results for metal analyses in soil samples, including total chromium. Was Chromium⁺⁶ measured? This information may be necessary for future

determinations of cleanup levels based on toxicity to aquatic organisms.

9. Section 6.2.4, Groundwater Pathway and Potential Targets, states that "(e)ven though an observed release and the potential for migration of groundwater contamination exists, migration to the nearest drinking water wells is unlikely because the shallow groundwater beneath the Mole is hydraulically connected with the West Basin of Long Beach Harbor and San Pedro Bay. It is expected to migrate to these surface waters before migrating to deeper aquifers. Furthermore, the Gaspur and Gage Aquifers, that underlie the NC Long Beach have no reported beneficial uses on the seaward side of the Dominguez Gap injection barrier..." Section 3.3.3.1, Hydrogeologic Units, makes note that "the Gaspur, Gage, Lynwood, and Silverado aquifers may merge in the Long Beach Harbor area." Reconcile the apparent differences of the two statements in the final document, describe what steps will be taken to fully investigate the subsurface geology of this facility, and address migration of hazardous contaminants that are denser than water (e.g. Carbon disulfide).
10. Site 4 results are described on page 6-99. Soil samples at this site were collected at a depth of 5 feet bgs. How was the 5 foot depth selected?
11. Groundwater Pathway and Potential Targets, section 6.4.4, states that "... the Gaspur and Gage Aquifers that underlie the facility have no reported beneficial uses." The Water Quality Control Plan for the Los Angeles River Basin lists beneficial uses for the Coastal Plain of L.A. County, the area encompassing this facility, as municipal, agricultural, industrial, and process water supply.
12. Section 6.6.2 indicated that one type of waste deposited at Site 6 (6.4.2) was sandblast grit. Expected analyses for the organotins could not be found in Appendix D, Analytical Results.
13. Section 6.6.4, Groundwater Pathway and Potential Targets, states that "even if a release to groundwater is established, migration of groundwater contamination to the nearest drinking water wells is unlikely. If a bulk release of DNAPL occurred the vertical migration is expected to be low due to the relatively low hydraulic conductivity of the hydraulic fill." While this

statement is probably true for water, it may not be true for DNAPL constituents. This type of concern must be addressed in this report and/or the RI/FS.

Additionally, the report stated that "(t)he Silverado aquifer is separated by aquitards for the gage and gaspur." This statement must also be reconciled with the statement in comment 9.

14. Section 7.4.2 lists the recommendations for Site 4. One recommendation for Site 4 is to verify the groundwater gradient across the site and to assess the impact of tide on groundwater direction. If groundwater flow is toward the harbor, the Enclosed Bays and Estuaries Plan may be an ARAR. If flow is toward the ocean the applicable requirements may be the Ocean Plan.

If you have any questions regarding these comments, please contact Mark Pumford at (213) 266-7612.


for J. E. Ross, Unit Chief
Site Cleanup Unit

Joe Zarnoch, DTSC, Long Beach
Andrea Muckerman, SWDIV