



Navy CLEAN II Program
BNI Job No. 22214
Contract No. N68711-92-D-4670
File Code: 0218

IN REPLY REFERENCE: CTO-177/0235

July 2, 2002

Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 02R1
1220 Pacific Coast Highway
San Diego, CA 92132-5190

Subject: Seventh Round - Analytical Results from IR Site 3, Groundwater Sampling Results from
May 2002 at Groundwater Monitoring Well MW-3-05 and MW-3-03A
Former Long Beach Naval Station, Long Beach, California

Dear Mr. Selby:

Groundwater samples from Installation Restoration (IR) Site 3 at the former Naval Station at Long Beach, California were collected and submitted to a laboratory for analyses during May 2002. The sampling represents the seventh round of sampling at IR Site 3 conducted as part of CTO-177. The samples were collected from groundwater monitoring well MW-3-05 and MW-3-03A and were analyzed for benzene and vinyl chloride.

The work was performed following the Final Work Plan for Groundwater Monitoring at Installation Restoration Program Sites 9, 12, and 13 at former Long Beach Naval Shipyard, Long beach, California prepared by Bechtel National, Incorporated (March 1999). A technical memorandum was issued by Bechtel National, Incorporated on May 22, 2000 describing the use of this work plan to perform the sampling required at IR Site 3.

Samples were collected from the wells after three well volumes were purged from each well (approximately 30 gallons per well) and temperature, pH, conductivity, and turbidity readings stabilized. The samples were analyzed using United States Environmental Protection Agency Method 8260B. Quality control samples included: a field duplicate, trip blank, rinsate sample, and a field blank. Quality control samples were non detect for benzene and vinyl chloride except for benzene reported at 0.7 µg/L for the equipment rinsate sample. The samples were collected on May 30, 2002.

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Results were verified, validated, and entered into the Bechtel Environmental Integrated Data Management System.

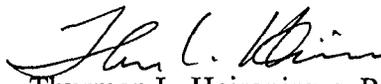
Results from previous sampling by CDM Federal were reported in a draft Annual (Fourth Quarterly) Report for Groundwater Monitoring at IR Sites 1 and 2 (Area of Potential Concern 4) and 3 (Area of Potential Concern 2) at the former Naval Station at Long Beach California (July 7, 2000). Benzene results from MW-3-05 at IR Site 3 ranged from 10 to 40 µg/L. Vinyl chloride results from MW-3-05 ranged from 15 to 80 µg/L. The sampling was performed between July 1994 and April 1999. Results from the previous sampling round during February 2002 were 13/13 µg/L for benzene and 51/51 for vinyl chloride. Two results are given because a regular sample was analyzed along with a field duplicate submitted to the laboratory for quality assurance. Results from the subject round of sampling for May 2002 were 18/19 µg/L for benzene and 52/53 for vinyl chloride. These results are consistent with previously described analytical results. The Port of Long Beach installed and developed a new well during the spring of 2002. This well is designated MW-3-03A. The well is located south of the road south of IR Site 3 near the Pacific Ocean. This well was installed to determine if any benzene or vinyl chloride is migrating towards the Pacific Ocean. The well was sampled on May 30, 2002 and results were 0.3 U µg/L for benzene and 0.5 U for vinyl chloride. The U symbol indicates the respective analyte was below the shown numeric-reporting limit.

Results from sampling conducted at MW-3-05 between July 1994 and May 2002 are shown on Figure 1 along with California Ocean Plan objectives for 1997. Benzene concentrations are consistently above the California Ocean Plan objective for benzene. Vinyl chloride concentrations are slightly above the California Ocean Plan objective for vinyl chloride. Results from the May 2002 sampling of MW-3-03A are shown on Figure 2.

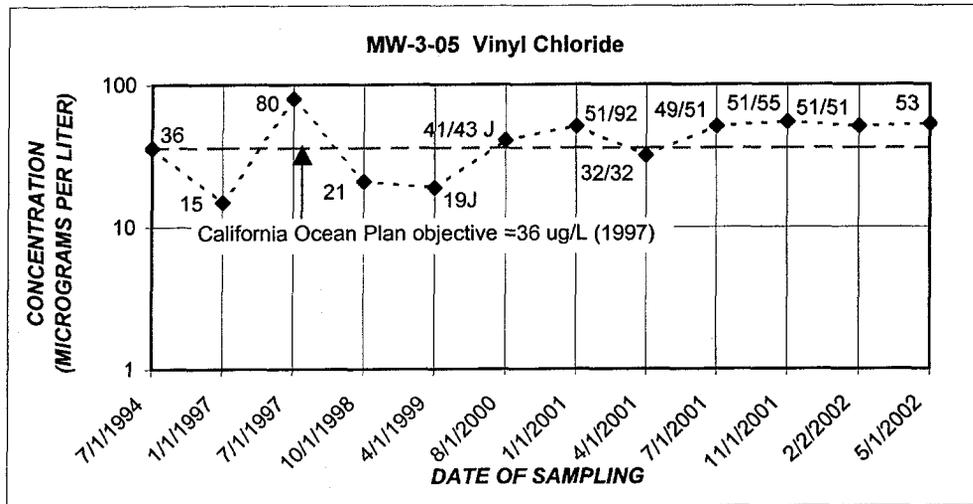
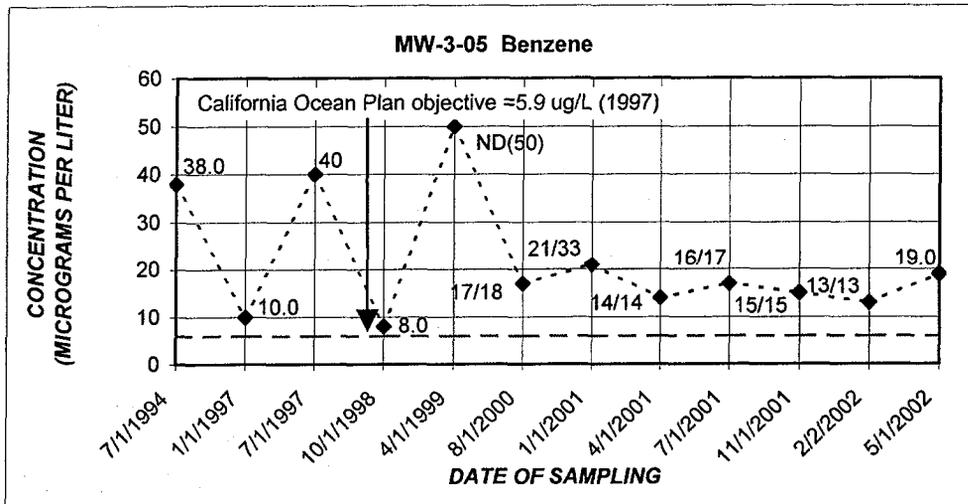
No further action is recommended at this site pending analytical results from samples collected on July 1, 2002 to verify the May results obtained from MW-3-03A. Current results indicate benzene and vinyl chloride concentrations near MW-3-05 are stable and results from well MW-3-03A indicate benzene and vinyl chloride are not migrating to the Pacific Ocean.

If you have any questions, please contact Scott Donovan, CTOL, at (619) 744-3019 or me at (619) 744-3004.

Sincerely,


Thurman L. Heironimus, R.G.
Project Manager

TLH/ish



J = estimated concentration

ND = not detected (detection limit)

Data Reference: CDM Federal Programs Corp. July 07, 1998. Draft Annual (Fourth Quarterly) Report, Groundwater Monitoring IR Sites 1 and 2 (AOPC 4) and 3 (AOPC 2) Former Naval Station Long Beach, California (Figure 2-4)

**Benzene and Vinyl Chloride Concentrations
in MW-3-05 (July 1994 to May 2002)**

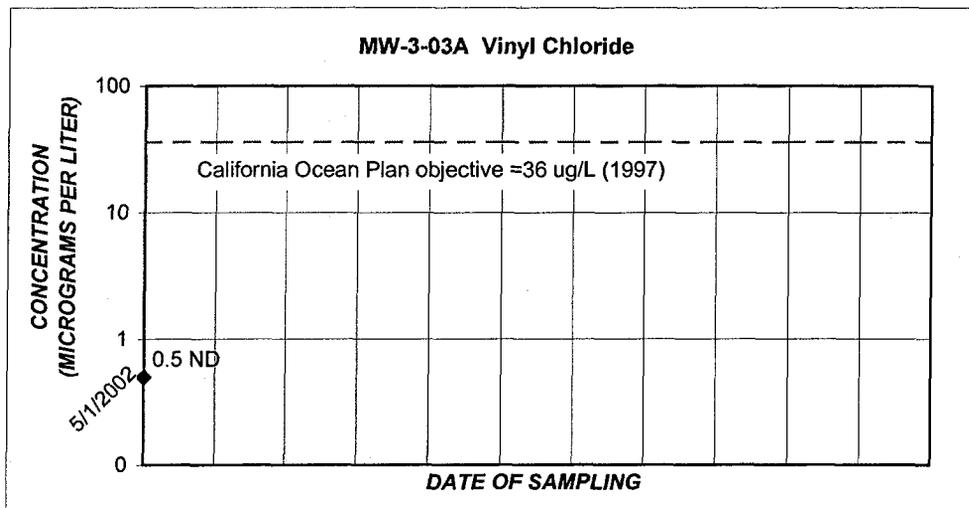
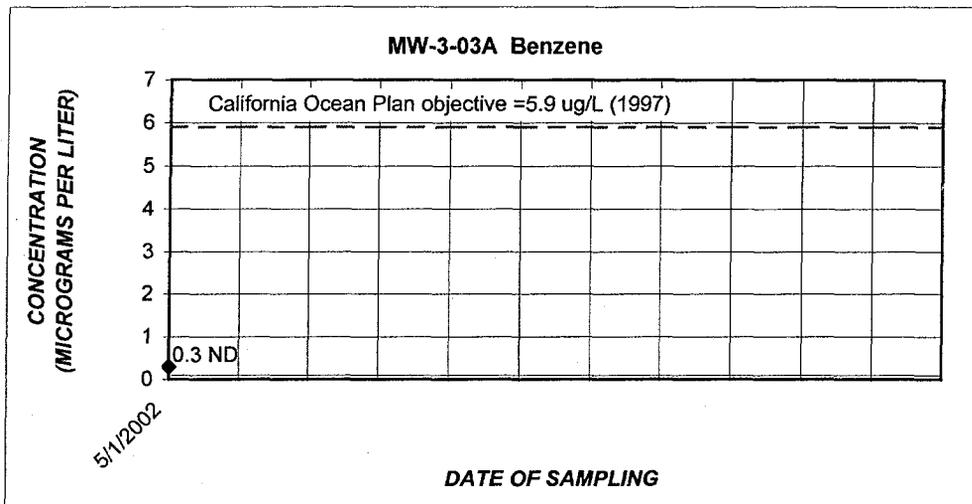
**IRP Site 3
Figure 1**

Former Naval Station, Long Beach, California



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ND = not detected (detection limit)

**Benzene and Vinyl Chloride Concentrations
in MW-3-03A (May 2002)
IRP Site 3
Figure 2**

Former Naval Station, Long Beach, California



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CLEAN II TRANSMITTAL/DELIVERABLE RECEIPT

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Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 02R1
1220 Pacific Highway
San Diego, CA 92132-5190

DATE: July 2, 2002
CTO #: 0177
LOCATION: Former Long Beach Naval Station

FROM: [Signature]
Thurman L. Heironimus, Project Manager

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