Harding Lawson Associates

January 29, 1988

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Commanding Officer
Western Division
Naval Facilities Engineering Command
P.O. Box 727
San Bruno, California 94066-0720

Attention: Mr. Alex Dong, Code 1146

Gentlemen:

This letter presents Harding Lawson Associates' (HLA) summary of information gathered during our ongoing Hazardous Ranking System (HRS) analysis for Hunters Point Annex (HPA). The information presented herein is specific to questions that have arisen concerning the ground-water uses at HPA and is based on data available at the time of this letter.

To date, there are no known operating ground-water wells within the prescribed three mile radius of HPA. However, there is a spring located less than one mile north of HPA on Innes Avenue. The spring is currently owned and operated by Mountain Springs Water Company. The following is a list of information that has been gathered concerning the spring, and is presented as a justification for not scoring this spring as a ground-water source or use.

- A spring producing water that is not isolated from the ground surface or atmosphere is not considered as a ground-water source and not scored under the HRS (US EPA, 1987). The spring at Mountain Springs Water Company is not isolated from the ground surface and/or atmosphere. The water discharges from naturally occurring geologic formations and is collected in two open reservoirs prior to entering the bottling process (Mee, 1987). Therefore, according to the HRS model guidance document, the spring is considered a surface water body and should be scored as such. The intake of this surface water body is located "upstream" from HPA and should be scored appropriately.

- To be scored as a ground-water use that may be affected by contaminant releases or migration from HPA, the said spring must be hydraulically connected to the aquifer of concern. The aquifer of concern at HPA has been defined as twenty to thirty feet of man-made fill material. The lower permeability of the

underlying Bay muds isolates the aquifer of concern from other underlying stratigraphic units. The spring draws water from an area characterized as slope debris, ravine fill, and serpentinite bedrock (Bonilla, 1971). The spring is not hydraulically associated with the aquifer of concern.

- The spring is located both hydraulically and directionally upgradient of HPA. Mountain Springs Water Company is located at approximately 60 feet above mean sea level, while the water surface elevations of the aquifer of concern at HPA is at approximately 0 feet mean sea level.

These findings support not scoring the Mountain Springs Water Company spring as a ground-water or surface water use since (1) the spring is not considered a well, (2) the spring intakes are located "upstream" of the HPA site, (3) the spring does not draw water from the HPA aquifer of concern, and (4) the spring is both hydraulically and directionally upgradient from HPA.

In addition to this information, analytical results of the spring water have historically shown no indication of elevated chemical levels (Brown and Caldwell, 1985). To further substantiate this information, HLA is arranging an informational tour of the spring at Mountain Spring Water to document the spring construction and collect any pertinent historical, or analytical information available.

Should you have any questions regarding this summary, please contact the undersigned at (415) 892-0821.

Yours very truly,

HARDING LAWSON ASSOCIATES

Glenn S. Goodman
Senior Hydrogeologist

James C. Davies
Principal Engineer

Attachment: References

GSG/ljc/B3094-CT

REFERENCES

Bonilla, M.G. 1971. Geologic Quadrangle Map. San Francisco South - MF-311. United States Geological Society.

Brown and Caldwell. 1985. Laboratory results of Mountain Spring Water samples. Emeryville, California.

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