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September 12, 2006
Project 00447

Tim Cook
COOK ENVIRONMENTAL SERVICES, INC.
271 Las Juntas Way
Walnut Creek, California 94597

SUBJECT: Tier 1 ESL Surfer Evaluation
Residual MtBE Concentrations
2951 High Street, Oakland, California

Dear Mr. Cook:

This letter report transmits the results of my Tier 1 ESL evaluation of residual methyl tert butyl ether (MtBE) concentrations at the subject fuel leak site in Oakland. This work updates the approved RBCA risk assessment performed in 1997 for the site (Palmer, 1997). The ESLs (environmental screening levels) have been established by the San Francisco Bay Regional Water Quality Control Board (RWQCB) to provide numerical concentrations for assessing sites with contaminated soil and/or groundwater (RWQCB, 2005).

To facilitate a full comparison of the various ESLs for a particular compound to both human health and general environmental considerations, the RWQCB developed 'ESL Surfer', an interactive Excel spreadsheet. I used the most recent version of ESL Surfer available today on the RWQCB's web site. To cover both surrounding neighbors and possible future redevelopment of the site itself, the ESL Surfer was utilized for both a 'commercial or industrial' land use designation and a 'residential' designation.

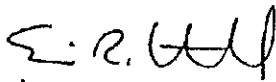
Based on the two tables of groundwater analytical you provided, the maximum concentration of MtBE residuals is 700 ug/L, at location B-3. The monitoring well testing results show a somewhat lower maximum MIBE; specifically 410 ug/L at MW-8.

Although we understand the main focus of the new evaluation is groundwater, the ESL Surfer spreadsheet also accounts for soil concentrations. Conservatively, I re-used the representative MtBE concentration that was employed in 1997; i.e., 0.097 mg/kg. With the passage of nearly 10 years, it is wholly expected that the current 'representative' MtBE concentration in site soils is less than this. As with the 1997 RBCA work, the subject updated soil evaluation concerns 'deep' conditions, i.e., below three meters from the ground surface.

The two ESL Surfer Summary Forms for the subject site's MtBE impacts are attached. There were no Tier 1 ESLs exceeded for soil or groundwater in either land use scenario. Accordingly, it is my opinion that the RWQCB ESL evaluation of MtBE supports a case closure designation for the subject site.

This letter report and the associated work have been provided in accordance with the general principles and practices currently employed locally in the environmental consulting profession. This is in lieu of all warranties, express or implied.

Prepared by:



Eric R. Lautenbach, CE 42437
Environmental Engineering Consultant



Attachments: Tier 1 ESL Search Summary Form (Commercial or Industrial Land Use)
Tier 1 ESL Search Summary Form (Residential Land Use)

References:

Palmer, Christopher M., Addendum to Risk Assessment for Zima Center Corporation, 2952 High Street, Oakland, CA, unpublished consultant's letter to Alameda County Health Care Services, Hazardous Materials Division, dated August 22, 1997.

San Francisco Bay Regional Water Quality Control Board, 2005, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, February, 2005 (ESL Surfer revised October 2005).

Tier 1 ENVIRONMENTAL SCREENING LEVELS SEARCH SUMMARY FORM

San Francisco Bay Regional Water Quality Control Board
California Environmental Protection Agency
(Referenced ESLs: February 2005)

Site Name: ARCO (Oakland) Site Address: 2951 High Street, Oakland, CA 94619
Site ID Number: 1038 (Alameda County LOP) Date of ESL Search: 12-Sep-06

Selected Site Scenario	
Land Use:	Commercial or Industrial
Depth to Impacted Soil:	Deep Soil
Groundwater Utility:	Nondrinking Water Resource

Selected Chemical of Concern:	METHYL TERT BUTYL ETHER
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Input Site Concentrations:	
Soil (mg/kg):	0.097
Groundwater (ug/L):	700

			Tier 1 ESL Exceeded?	
Soil Tier 1 ESLs:				
Direct Exposure:	mg/kg	2.5E+03	No	Referenced Table Table D-2:
Vapor Emissions To Indoor Air:	mg/kg	5.6E+00	No	
Terrestrial Ecological Impacts:	mg/kg	-	No	
Gross Contamination:	mg/kg	1.0E+03	No	
Leaching:	mg/kg	8.4E+00	No	
Lowest Soil ESL:	mg/kg	5.6E+00		
Groundwater Tier 1 ESLs:				
Drinking Water (Toxicity):	ug/L	na	No	Referenced Table Table F-1b
Vapor Emissions To Indoor Air:	ug/L	8.0E+04	No	
Impacts to Aquatic Habitats:	ug/L	8.0E+03	No	
Gross Contamination:	ug/L	1.8E+03	No	
Lowest Groundwater ESL:	ug/L	1.8E+03		
Other Tier 1 ESLs:				
Indoor Air:	ug/m ³	1.6E+01		Table E-3
Shallow Soil Gas:	ug/m ³	3.1E+04		Table E-2

Reference:

Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (February 2005), San Francisco Bay Regional Water Quality Control Board, California EPA, <http://www.waterboards.ca.gov/sanfranciscobay/esl.htm>

Source Tables: Referenced Table from Appendix 1 of ESL document.

**Tier 1 ENVIRONMENTAL SCREENING LEVELS SEARCH
SUMMARY FORM**

San Francisco Bay Regional Water Quality Control Board
California Environmental Protection Agency
(Referenced ESLs: February 2005)

Site Name: ARCO (Oakland) Site Address: 2951 High Street, Oakland, CA 94619 Site ID Number: 1038 (Alameda County LOP) Date of ESL Search: 12-Sep-06
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Selected Site Scenario	
Land Use:	Residential
Depth to Impacted Soil:	Deep Soil
Groundwater Utility:	Nondrinking Water Resource

Selected Chemical of Concern:	METHYL TERT BUTYL ETHER
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Input Site Concentrations:	
Soil (mg/kg):	0.097
Groundwater (ug/L):	700

			Tier 1 ESL Exceeded?	Referenced Table
Soil Tier 1 ESLs:				
Direct Exposure:	mg/kg	2.5E+03	No	Table D-1:
Vapor Emissions To Indoor Air:	mg/kg	2.0E+00	No	
Terrestrial Ecological Impacts:	mg/kg	-	No	
Gross Contamination:	mg/kg	5.0E+02	No	
Leaching:	mg/kg	8.4E+00	No	
Lowest Soil ESL:	mg/kg	2.0E+00		
Groundwater Tier 1 ESLs:				
Drinking Water (Toxicity):	ug/L	na	No	Table F-1b
Vapor Emissions To Indoor Air:	ug/L	2.4E+04	No	
Impacts to Aquatic Habitats:	ug/L	8.0E+03	No	
Gross Contamination:	ug/L	1.8E+03	No	
Lowest Groundwater ESL:	ug/L	1.8E+03		
Other Tier 1 ESLs:				
Indoor Air:	ug/m ³	9.4E+00		Table E-3
Shallow Soil Gas:	ug/m ³	9.4E+03		Table E-2

Reference:

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