MEMORANDUM

[redacted]

FROM: JOEL I. CEHN

SUBJECT: TESTING

DATE: 5/15/2006

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April Sampling Campaign

I have the lab results for the April sampling. I collected mostly soil and water samples (including surface water and rainwater--it rained that week). I also sampled weeds from various gardens (no produce yet), avocados and citrus; and also milk from the herd. As per design, the sampling was mostly in occupied areas of BBI, with only a few samples close to the Boeing property line (locations RT, OS2, OS3 & OS4). Several samples were taken from the Old Well campsite area (OWC & CV). Testing focused on known Boeing contaminants, namely metals (lead, mercury, cadmium, chromium, beryllium), TCE, PCBs, perchlorate and tritium.[1]

In summary, test results showed no further migration of pollution from Boeing. All BBI soil samples were normal for metals and negative for PCB & perchlorate. While metals in soils varied over a range (see chart), a check of values reported elsewhere showed that range to be within normal limits.[2] Water and citrus (juice) samples were tested for tritium and only background levels were detected (10-30 pCi/L—groundwater background is lower.) Levels near the old property line are thousands of pCi/L; the drinking water limit is 20,000. Two southwestern property springs were negative for TCE (OS-2 & OS-3). (See attached charts.)

The only significant finding this year is the perchlorate detected in milk and vegetation. The milk sample I took from a local market had the highest level. Soil from Balboa Park[3] contained measurable perchlorate. Although no background vegetation samples were collected, the background milk result indicates that area cows are grazing on grass containing perchlorate. In general, cows bio-concentrate contaminants in their milk. Perchlorate appears to be pervasive in Southern California and Arizona. Levels in the Colorado River (the source of most of it) are twice as high as I've detected here. There is no drinking water standard yet, but the State's "Response Level" where cleanup is required is 60 parts per billion—over ten times what I detected. (See attached chart.) Finally, the milk samples were negative for PCBs, which tend to concentrate in milk fat.

I am also enclosing a summary table, sampling location sketch and the lab reports.

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[1] This is most, but not all of known contaminants. With a larger budget, I would add dioxins to the testing, but this test runs about $1,000 per sample.

[2] Soil contains a large number of natural minerals and chemicals. On the chart I've shown normal backgrounds for several (lead, up to about 50ppm; and mercury, up to about 90ppb).

[3] This park, about 14 miles southeast of BBI, is used as a background location.

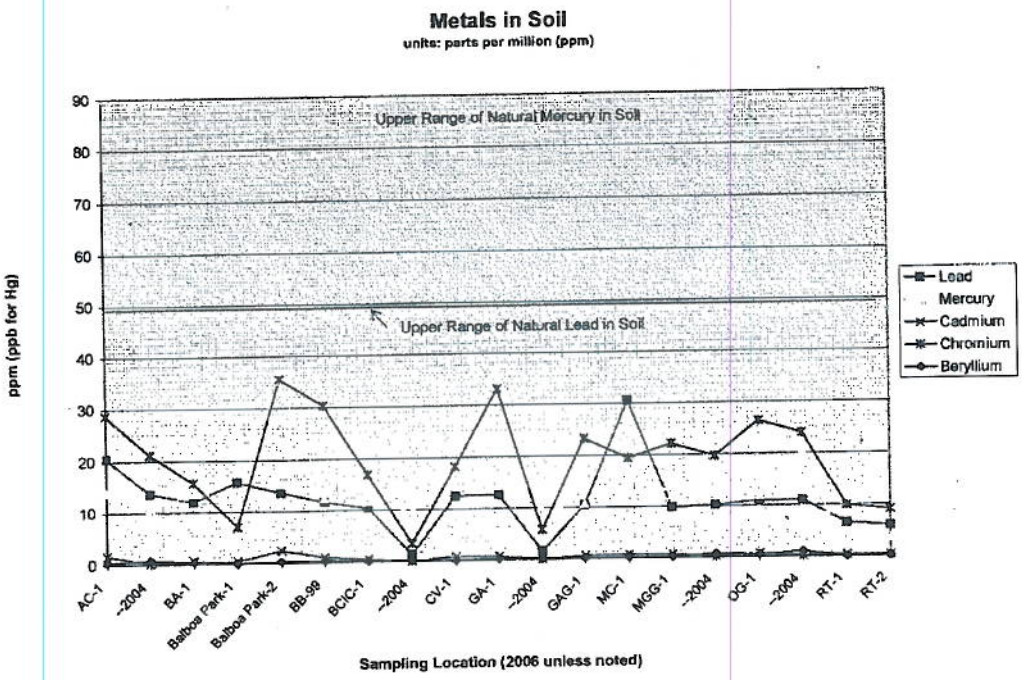
[redacted]

Recommendations

My recommendations for further testing are: testing of crops (when grown) for perchlorate, including a background (off-site) sample; sampling of locations missed or not accessible (Hidden Valley and spring OS-9); and perchlorate tests closer to the Boeing property line. Call or email if you have any questions.

Program Results to Date

As you know, testing of environmental media was begun along the property line with Boeing in 1991. Since then, the monitoring has been expanded to all areas of BBI. In 1997, Boeing purchased 150 acres of land from BBI. This land contains nearly all the contaminated property. Program results indicate that any residual pollution is confined to the area around new property line, at levels considered safe. Since 1997, testing has occurred intermittenty to ensure that contamination has not migrated closer to the occupied areas of BBI, about 2 miles away. So far, no migration has been detected. All results indicate that present use of the property is safe; exposure to unsafe levels of pollution is not occurring and is not expected to occur



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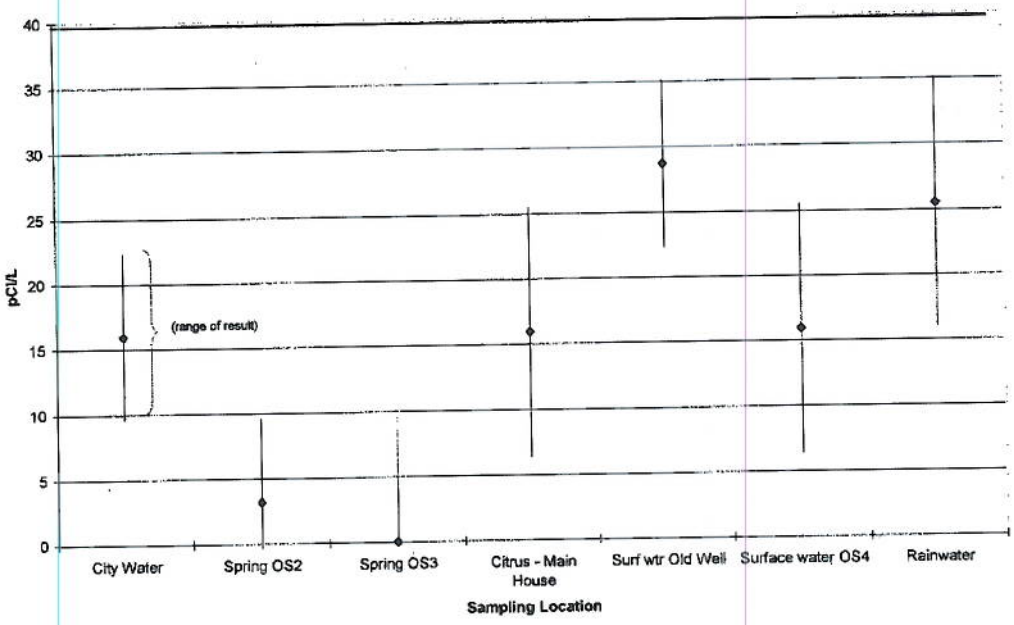
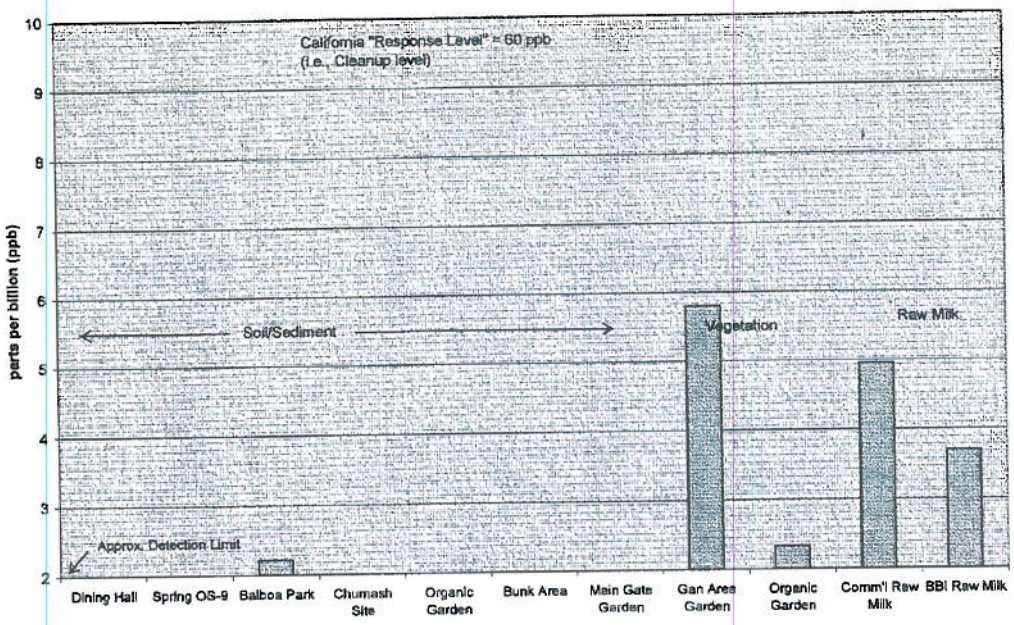
April 2006 Tritium Results



Perchlorate Results - 2006



BBI Selected Results - 2004 2006

Location (see map)		Medium	Results - parts per billion							
			Metals		PCB		perchlorate		tritium pCi/L	
Code			2004	2006	2004	2006	2004	2006	2004	2006
AC-1	Art Building Area	soil	normal	normal	U	-	-	-	-	-
AG-1	Avocado Grove	vegetation	-	-	U	U	-	-	-	-
BA-1	Bunk Area	soil	-	normal	U	-	U	U	-	-
BABH-1	Bunk Area; boys bathhouse	soil	-		-		U		-	
BABH-2	Bunk Area; girls bathhouse	soil	-		-		U		-	
BALP-1	Balboa Park - LA River bank	soil		normal		U		2.22		-
BALP-2	Balboa Park	soil		normal		U		-		-
BB-99	Czerwinski Creek	soil		normal		-		-		-
BCIC-1	BCI cottages; flag pole	soil	normal	normal	-	-	U	-	-	-
CIT-1	CIT Hill	soil	normal		U		-		-	
CV-1	Chumash Site	soil		normal		U		U		-
DA-1	Development Area	soil	normal	-	7/U	U	-	-	-	-
DA-2	Development Area	soil	-		U		-		-	
DH-1	Dining Hall	soil	-	-	U	-	3/J	U	-	-
DHS-1	Alopie cottage	soil	-		-		J		-	
DHS-2	Ropes course wall	soil	-		-		J		-	
FG-1	Flower garden; admin. area	soil	normal		-		J		-	
GA-1	Gan play area	soil	normal	normal	U	-	U	-	-	-
GAG-1	Gan area garden	soil		normal		-		-		-
GAG-1V	Gan area garden	vegetation		-		-		5.8		-
HOTB-1	House of Book trail #1	soil	normal		-		U		-	
HOTB-2	House of Book trail #2	soil	normal		-		J		-	
HV-1	Hidden Valley	soil	normal		U		-		-	
MC-1	Meyer Creek	soil	-		U		U		-	
MGG-1	Main gate garden	soil	normal	normal	-	-	U	U	-	-
MH-1	Main house orchard	citrus juice	-		-		U		U	16
MI-1	BBI milk cow	milk	-	-	X	U	14.9	3.7	-	-
MI-2	Von's milk	milk	-		X		4.04		-	
MI-3	comm'l. raw milk	milk		-		U		4.95		-
ML-1	Molle Library	soil	normal		-		U		-	
NBC-1	New BCI Camp	soil	normal		U		-		-	
NBC-2	New BCI Camp	water	-		-		U		U	
OG-1	Organic garden	soil	normal	normal	U	-	J	U	-	-
OG-1	Organic garden	vegetation		-		-		2.33		-
OS-9	Spring OS-9	water	-		-		U/U		U	
OS-9	Ground below spring	soil	normal	-	-	-	U/J	U	-	-
OWC-1	Old well campsite	soil	normal		U		-		-	
OWC-2	Old well campsite	water	-		-		U		U	29
PINE-99	City Water	water	-		-		U		U	16
RN-9	Rainwater (4/5/06)	water		-		-		-		26
RT-1	Red Tank #1	soil	normal	normal	U	-	-	-	-	-
RT-1	Red Tank #2	water	-		-		U		U	
RT-2	Red Tank #2	soil	normal	normal	U	U	-	-	-	-
RT-3	Red Tank #3	soil	-		U		-		-	
TBC-1	T'sha B'av Campsite	soil	normal		U		-		-	

Notes:

- indicates not analyzed.

(blank) indicates not sampled.

U indicates not detected

J indicates not detected above reporting limit.

indicates background location

X indicates lab failure

/ indicates more than one sample taken

[redacted]

BBI Map Showing Sampling Locations