



San Francisco
Water Power Sewer

Services of the San Francisco Public Utilities Commission

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Mr. Bruce H. Wolfe,
Executive Officer
California Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

May 17, 2013

Re: Comments on Draft Order No. R2-2013- Revised Site Cleanup Requirements and Rescission of Order No. 94-017 (Pacific Rod and Gun Club, 520 John Muir Drive, San Francisco, CA)

Dear Mr. Wolfe,

I write to provide comments on the above referenced draft site cleanup order on behalf of the San Francisco Public Utilities Commission (SFPUC).

1. Page 2, Item 4 - Site Contamination: Line 4 states that "Fragments of targets containing PAHs can be found in soil at the Site between the ranges and the Lake". Our Supplemental Investigation and Health Risk Assessment Report submitted to the RWQCB in 2012 observed target fragments throughout the site, including the parking lot area upwind of the ranges and the Lake. This sentence should be edited to indicate that; "Fragments of targets containing PAHs can be found in soil across the Site including the parking lot behind the ranges".
2. Page 3, Item 4 - Site Contamination: Line 1 states that "Other asphaltic materials, with PAHs, have been detected in soils on other parts of the Site upwind of the ranges and the Lake". Based on the results of our Supplemental Investigation and Health Risk Assessment Report which included offsite background sampling, and previous historical site investigations, no "other" asphaltic materials have been observed onsite. This sentence should be edited to simply indicate that PAHs have been detected across the site, consistent with comment 1 above.
3. Page 6, Item 19 - Line 1: The reference to State Board Resolution Number 92-49 appears to be incorrect. According to the State Water Resource Control Board website, Resolution 92-49 was not approved by the Office of Administrative Law in 1993. The latest version appears to be Resolution Number 96-079. It also appears that the original Resolution 92-49 was amended on April 26, 1994 and on October 2, 1996, so perhaps the words "as amended" should be added following the reference to Resolution Number 92-49?

Edwin M. Lee
Mayor

Art Torres
President

Vince Courtney
Vice President

Ann Moller Caen
Commissioner

Francesca Vietor
Commissioner

Anson Moran
Commissioner

Harlan L. Kelly, Jr.
General Manager



4. Page 8, Item 4 - Tasks – Lake Sediment - Completion of Remediation: The draft order proposes a Compliance Date of January 1, 2016 for completion of remedial activities related to Lake sediments and submittal of a completion report documenting these activities. However considering that none of the preliminary work has been conducted, a high level of uncertainty due to lack of investigation data, clarity on amount of required remediation, method of cleanup in a sensitive environment, level of required environmental permitting and level of environmental review makes it impractical to estimate a completion date at this time. Assuming the requested investigations conclude that sediment management or removal is required, a more accurate schedule and due date for implementation of remedial action, and preparation of a completion report could be determined by the RWQCB Executive Officer following completion of the Ecological Risk Assessment and the Remedial Action Plan.

The SFPUC is committed to working with the RWQCB staff and the PRGC to expeditiously implement the tasks in the draft order. Please feel free to contact me or Obiajulu Nzewi at onzewi@sewater.org (415 554 1876) with any questions you may have regarding our comments on the draft order.

Sincerely,



Steven R. Ritchie
Assistant General Manager, Water

CC: Alan Friedman, RWQCB
Jim Arnold, PRGC

The Arnold Law Practice

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*Please respond to our
Contra Costa Office*

**BY EMAIL,
ORIGINAL BY USPS**

May 17, 2013

Mr. John Muller, Chair
San Francisco Bay Region
California Regional Water Quality Control Board,
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Tentative Order No. R2-2013- for Site Cleanup Requirements and Rescission
of Order No. 94-017, Pacific Rod & Gun Club Lake Merced Site.

Dear Mr. Muller:

Thank you for providing the opportunity to comment on this Tentative Order. As you know, I represent the Pacific Rod & Gun Club, a California nonprofit corporation. The Club operates and maintains a recreational facility for the benefit of the public.

The Tentative Order is well-written and succinct. We do have several issues, though, with specific items in the Tentative Order.

First, the Tentative Order assumes that its issuance warrants a categorical exemption from compliance with the California Environmental Quality Act (CEQA). This is a particularly significant issue because the San Francisco Public Utilities Commission (PUC) has unilaterally chosen a "dig, haul, and replace" remedy for remediation without evaluation of alternatives. The PUC's remedy is estimated by its contractor as costing upwards of \$10 million in ratepayer money. Equally protective remedies for unlimited recreational uses, such as consolidation and encapsulation (which the City used for its Sharp Park shooting range), are estimated to cost about 1/2 what the PUC proposes to spend to "dig, haul, and replace." This information is already a part of the administrative record for this matter.

Second, the Tentative Order includes within the Site both the upland area of the Club and an adjacent area of Lake Merced. We have recently learned that although the water in the Lake is administered by the PUC, the land under the Lake is owned by the State of California and is administered by the State Lands Commission. Therefore, the Board should identify the State as a “discharger” pursuant to Section 13304, Water Code.

Each of these concerns can be briefly explained.

First, the Tentative Order relies on the so-called “common sense” exemption to CEQA, 14 CCR §15061(b) (3). The test is whether there is “no possibility” that the action being taken “will have the potential for causing a significant effect on the environment.” The administrative record for the Tentative Order demonstrates that one of the “dischargers,” the PUC has chosen a single remedy as appropriate. There is no analysis in the record to date that the remedy chosen by the PUC will have no adverse impacts. The Board should not simply assume that this Order, because it is believed to be intended to protect the environment, is entirely benign. The adoption of the new requirements – when the PUC has chosen a single remedy – has potential for both beneficial and adverse effects on the environment. See generally, *Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190; *Building Code Action v. Energy Resources Conservation & Development Commission* (1980) 102 Cal.App.3d 577; and *Muzzy Ranch Co. v. Solano County Airport Land Use Commission* (2007) 41 Cal.App.4th 372.

Nor does the Tentative Order, as presently written, come within the categorical exemption for actions to ensure the maintenance, restoration, enhancement, or protection of the environment, 14 CCR §15308 – in light of the unilateral decision of the PUC for a “dig, haul, and remove” remedy. The administrative record must show, at this point in time, the absence of significant environmental impact for this exemption to apply. See *California Unions for Reliable Energy v. Mojave Desert Air Quality Management District* (2009) 178 Cal.App.4th 1225. (Administrative record failed to include any evidence that air district’s claim that its regulation would not result in significant adverse environmental effects; so the California appeal court ruled that the district’s regulation did not qualify as an agency action to ensure the enhancement or protection of the environment.) Also see *International Longshoremen’s & Warehousemen’s Union, Local 35 v. Board of Supervisors* (1981) 116 Cal.App.3d 265 (California appeal court ruled that air district rule relaxing NOX emission standards was not categorically exempt where there was a reasonable possibility that such a change would have a significant effect on the environment).

Second, the Board should include the State of California as a “discharger” in the Tentative Order, as owner of the bed of Lake Merced. Since before the Porter-Cologne Water Quality Act was passed in 1968, it has been illegal to allow waters of the State. The Porter Cologne Act (California Water Code) §13304(a) requires, in relevant part,

Mr. John Muller
May 17, 2013
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that:

"[A]ny person who ...has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged or discharged into the waters of the state and creates or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste..."

The State Water Resources Control Board ("State Board") has explained that:

"[Section 13304 of the Water Code] applies to discharges that are past discharges, and clearly applies to uncontrolled, intentional, or negligent releases..." *In the Matter of the Petitions of the County of San Diego, et al.*, WQ 96-2 (State Water Resources Control Board, Feb. 22, 1996) 1996 WL 34481302.

In fact, it is for the creation and maintenance of a "nuisance," that the State should be included as a liable party in the Tentative Order, according to long-established California law.

"It is the release of pollutants associated with that waste into the ground water that is the subject of a CAO [cleanup and abatement order], and that release is a violation of law. Since 1872, California law has prohibited the creation or continuation of a public nuisance. See Civ. Code § 3490. Water pollution can constitute a public nuisance. See *People v. Truckee Lumber Co.*, 116 Cal. 397, 48 P. 3 74 (1897). A successor property owner who fails to abate a continuing nuisance created by a prior owner is liable in the same manner as the prior owner. See *City of Turlock v. Bristow*, 103 Cal.App. 750, 284 P. 962 (1930)." *In re County of San Diego, supra*.

The Board is authorized to include the State, as the current owner of the bed of Lake Merced, in its cleanup orders.

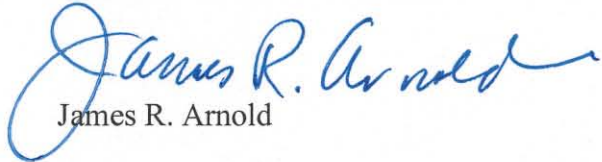
Section 13304 of the Porter-Cologne Water Quality Act must be construed "in light of the common law principles bearing upon the same subject." *City of Modesto Redevelopment Agency v. Superior Court* (2004) 119 Cal.App.4th 28, 38. This is not a case like *City of Modesto Redevelopment Agency v. Superior Court* (2004) 119 Cal.App.4th 28, where the Porter-Cologne Act did not make manufacturers of drycleaning solvents and equipment liable because "...those with no ownership or control over the property or the discharge, and whose involvement in a discharge was remote and passive." *Id.*, 119 Cal.App.4th 43. (*Emphasis added.*)

Thank you for your attention and response to these two critical issues with the Tentative Order. We ask that the Regional Board consider carefully the potential for

Mr. John Muller
May 17, 2013
Page 4 of 4

environmental harm with the issuance of the Tentative Order as currently written.

Very truly yours,



James R. Arnold

Cc:

Mr. Patrick Gilligan, President, Pacific Rod & Gun Club, Inc.
Ms. Terry Young, Ph.D., Vice Chair
Mr. Jim McGrath, Member
Ms. Abe-Koga, Member
Mr. William Kissinger, Member
Mr. Alan D. Friedman, P.E., Water Resource Control Engineer

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May 30, 2013

Mr. Alan Friedman
San Francisco Bay Region
California Regional Water Quality Control Board,
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Tentative Order No. R2-2013- for Site Cleanup Requirements and Rescission
of Order No. 94-017, Pacific Rod & Gun Club Lake Merced Site.

Dear Alan:

As you know, I represent the Pacific Rod and Gun Club, Inc., a California nonprofit corporation. We respectfully submit that the Tentative Order under consideration should include the State as a responsible party.¹ According to the maps supplied by the City, aerial photos, and historical maps of the Rancho Laguna de la Merced, most of the bed of the Lake offshore of Fields 1 through 7 is owned by the State. Some of the upland, or foreshore area, also appears to be below the historical mean high water mark, according to the available maps, and so is also owned by the State.

I am sending a copy of this letter to Mr. Milstein, attorney for the City, with a request that we review together as soon as possible the maps and other documents that he has available.

The City has concluded that a map Mr. Milstein provided to you (the "163" map) "...shows the label for the club (when magnified) to be within the rancho boundary..." However, when we look at this map and the 1871 plat of the Rancho Laguna de la Merced, we can see that the "geometry" of the Lake, including the "cove" between the

¹ As I mentioned to you earlier today, we also have some comments on the letter of May 17, 2013 that you received from the San Francisco PUC. We will have those comments for you tomorrow.

Mr. Alan Friedman
May 30, 2013
Page 2 of 3

SFPD facility and the Club's area appears remarkably the same in both the 1871 plat map and in the more recent "163" map. (Copies of these two maps are enclosed for easy reference, respectively, as Exhibits A and B.)

The following explains the basis for these conclusions in more detail.

The copy of the 1871 plat map we received from the City is fairly obscured, but it does show the western boundary of the Rancho land grant. On the "163 map" provided by the City there has been drawn a North-South line and a legend stating "*Approx. Western Boundary of Laguna de La Merced.*"

Some more clear copies of historical maps of the Rancho Laguna de la Merced are available from the Internet. (Copies are enclosed as Exhibits C and D.) They depict the boundary lines of the Rancho. They show the western boundary to be a roughly North South line cutting across the Lake.

There are also a couple of helpful aerial photos. The first aerial photo is an AMEC aerial photo, provided by the City. (Exhibit E) The second is a current aerial photo of the Club's facilities, provided by the Club to the City recently. (Exhibit F)

Using the "163" map, with the line shown as the West boundary of the Rancho Laguna de la Merced, a red line can be drawn on both aerial photos to mark what appears to be the North South line for the western boundary of the Rancho Laguna de la Merced.

From all of this, it appears that the bed of the Lake offshore of Trap and Skeet Fields 1-7 (i.e., the shoreline from the "cove" to the rifle range building) is more likely than not "lands of the State." (See Exhibit F). In addition, some of the foreshore between the shooting fields and the present water's edge is also owned by the State. California acquired sovereign fee ownership of the lands between low and high water in nontidal navigable lakes and rivers upon its admission to the Union in 1850. *State of California v. Superior Court (Lyon)* (1981) 29 Cal. 3d 210, 217-222. The Lake was periodically connected to the Pacific Ocean at the time of statehood.

The general policy of the Board has been to name all property owners, pursuant to Section 13304, Water Code, as responsible parties. Naming the State should facilitate both the needed investigation and the resolution as to what is needed for the Board, the City, and the State to carry out their responsibilities.

We urge the Board to include the State as a responsible party on the Proposed Order for Site Cleanup Requirements.

Very truly yours,



James R. Arnold

Mr. Alan Friedman
May 30, 2013
Page 3 of 3

Encls. – as noted

Cc (w/encls.):

Mr. Patrick Gilligan, President, Pacific Rod & Gun Club, Inc.
Mr. Josh Milstein, Office of the City Attorney, City and County of San Francisco

1116785

PLAT

of the Rancho
LAGUNA DE LA MERCED

formerly confirmed to
JOSEFA DE HARO et al.

in virtue of the report of Colonel Don A. B. Keith
in 1842, and the act, resolution of the
HON. COMMISSIONER OF GENERAL LAND OFFICE
dated April 27th 1871

by **Georg H. Thompson, Surveyor**
May 1871

Containing within boundaries stated herein 2219 1/2 Acs. 8010

Scale 20 Chains to an Inch.

Explanation

The General Survey of the State Surveyor General
of 1842, surveyed the Rancho Laguna de la Merced
making an error of 20 chains in the width of the
strip of land between the Rancho and the coast line
of the Bay of San Francisco. This error was
corrected by the Surveyor General in 1857, and the
Rancho was surveyed and confirmed to Josefa de Haro
et al. by the Hon. Commissioner of General Land
Office on the 27th of April 1871. The Surveyor
General has since that time surveyed the Rancho
and has found that the boundaries of the Rancho
as shown on the map of the Surveyor General of 1842
are correct, and that the boundaries of the Rancho
as shown on the map of the Surveyor General of 1857
are also correct. The Surveyor General has therefore
surveyed the Rancho and confirmed the boundaries
as shown on the map of the Surveyor General of 1842
and the map of the Surveyor General of 1857.

1871
1871

Section	Area in Acres	Area in Chains	Area in Squares	Area in Rods
1	100.00	2000.00	100.00	4000.00
2	100.00	2000.00	100.00	4000.00
3	100.00	2000.00	100.00	4000.00
4	100.00	2000.00	100.00	4000.00
5	100.00	2000.00	100.00	4000.00
6	100.00	2000.00	100.00	4000.00
7	100.00	2000.00	100.00	4000.00
8	100.00	2000.00	100.00	4000.00
9	100.00	2000.00	100.00	4000.00
10	100.00	2000.00	100.00	4000.00
11	100.00	2000.00	100.00	4000.00
12	100.00	2000.00	100.00	4000.00
13	100.00	2000.00	100.00	4000.00
14	100.00	2000.00	100.00	4000.00
15	100.00	2000.00	100.00	4000.00
16	100.00	2000.00	100.00	4000.00
17	100.00	2000.00	100.00	4000.00
18	100.00	2000.00	100.00	4000.00
19	100.00	2000.00	100.00	4000.00
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23	100.00	2000.00	100.00	4000.00
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82	100.00	2000.00	100.00	4000.00
83	100.00	2000.00	100.00	4000.00
84	100.00	2000.00	100.00	4000.00
85	100.00	2000.00	100.00	4000.00
86	100.00	2000.00	100.00	4000.00
87	100.00	2000.00	100.00	4000.00
88	100.00	2000.00	100.00	4000.00
89	100.00	2000.00	100.00	4000.00
90	100.00	2000.00	100.00	4000.00
91	100.00	2000.00	100.00	4000.00
92	100.00	2000.00	100.00	4000.00
93	100.00	2000.00	100.00	4000.00
94	100.00	2000.00	100.00	4000.00
95	100.00	2000.00	100.00	4000.00
96	100.00	2000.00	100.00	4000.00
97	100.00	2000.00	100.00	4000.00
98	100.00	2000.00	100.00	4000.00
99	100.00	2000.00	100.00	4000.00
100	100.00	2000.00	100.00	4000.00

The full title of the Rancho is given in the original Survey report to Joseph de Haro et al.
from which this plat has been made. See also a correct and approved map on file at the office
of the Surveyor General at San Francisco, California.

J. H. THOMPSON SURVEYOR

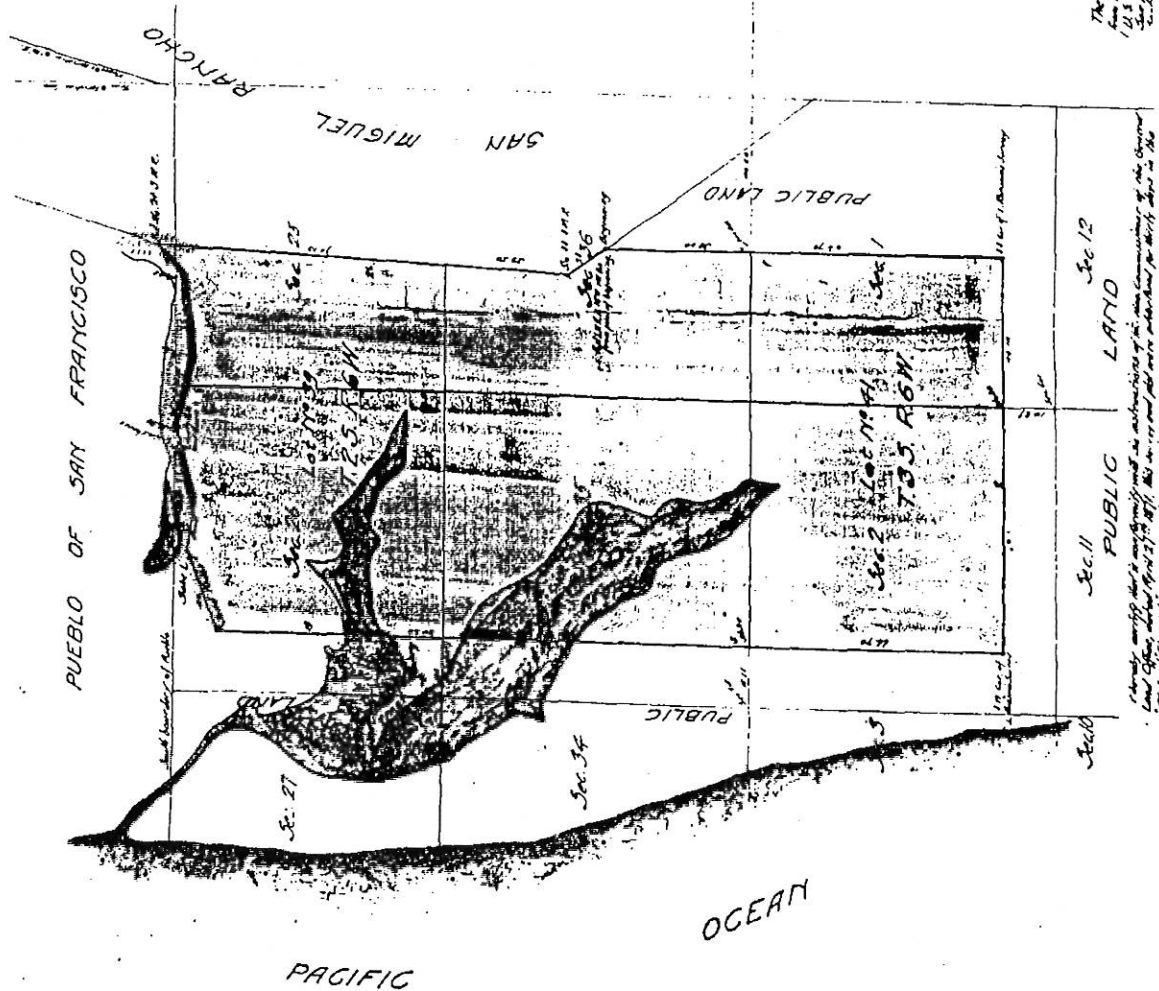
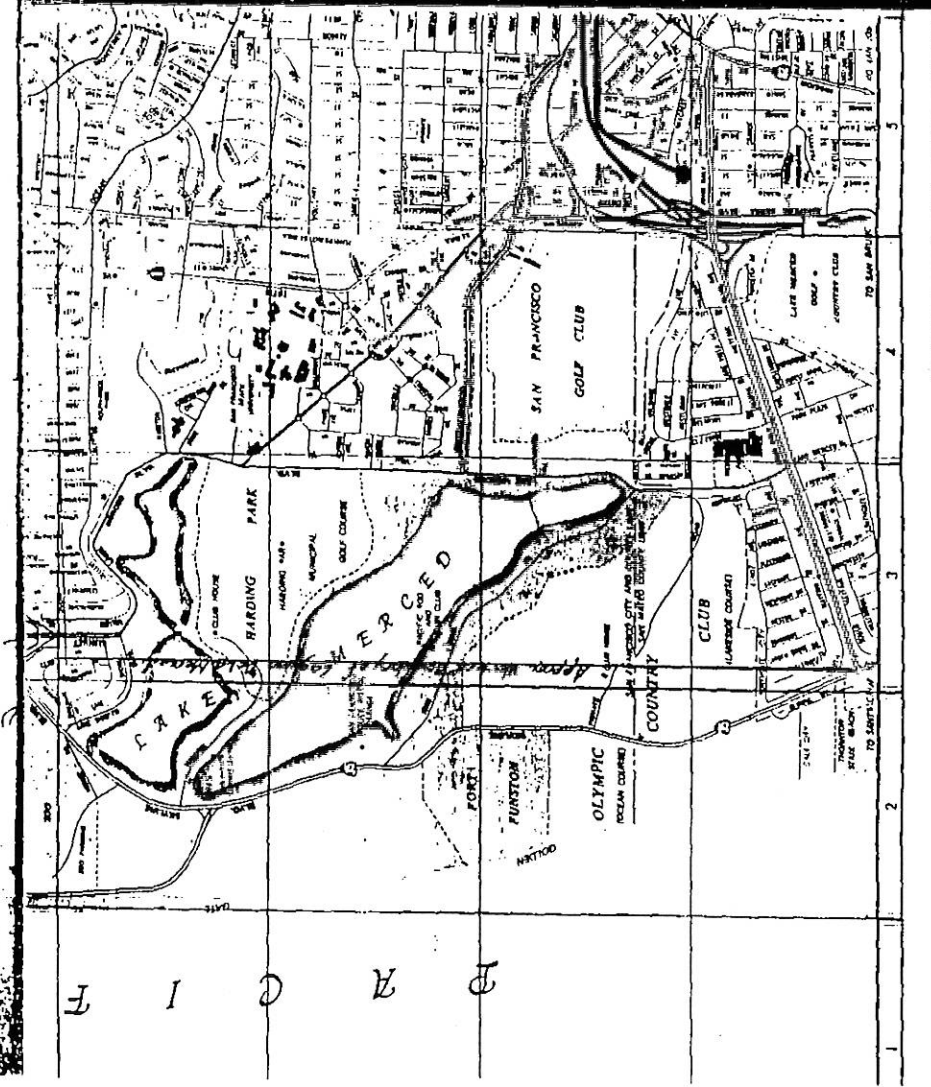
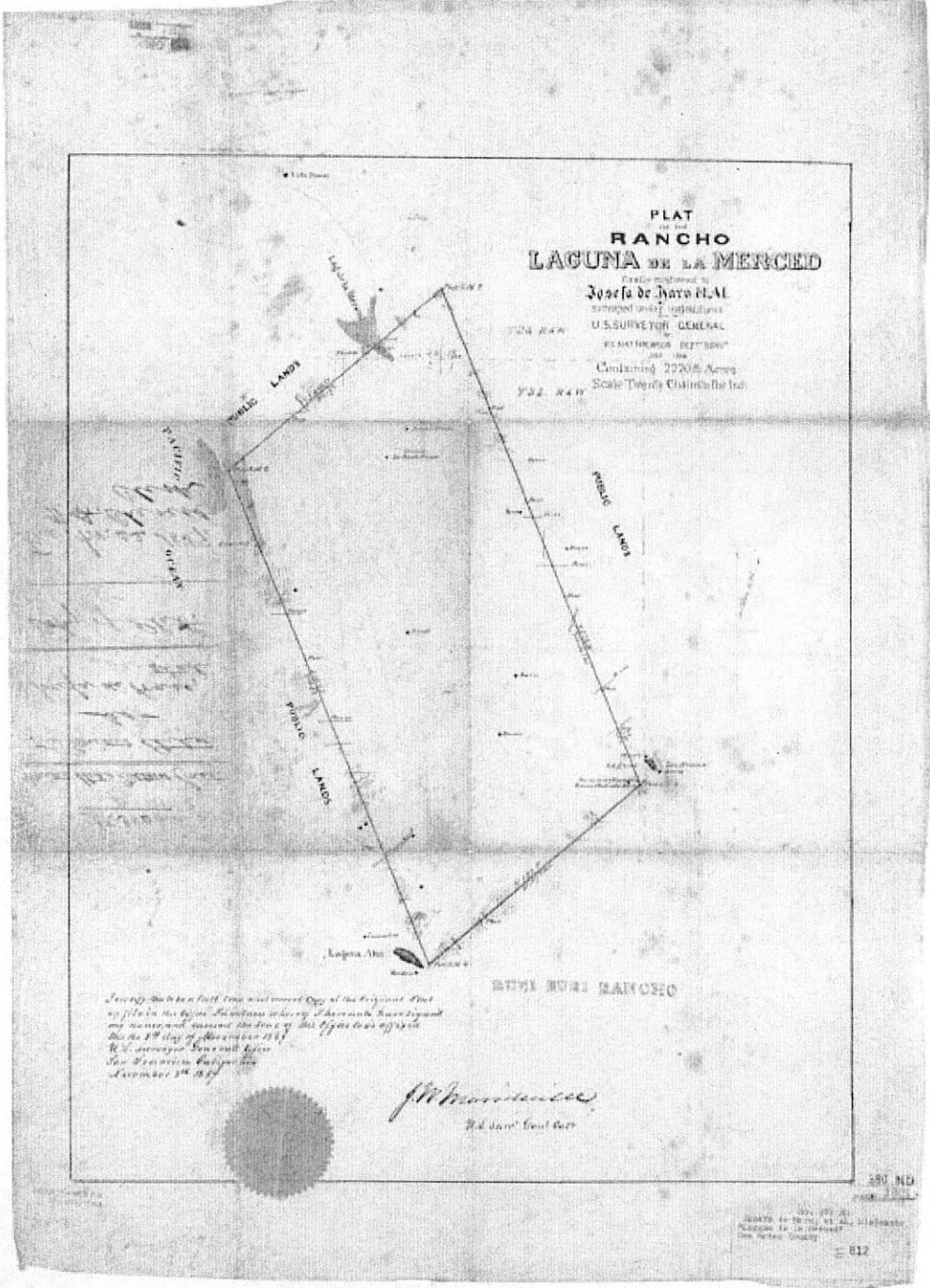


EXHIBIT A

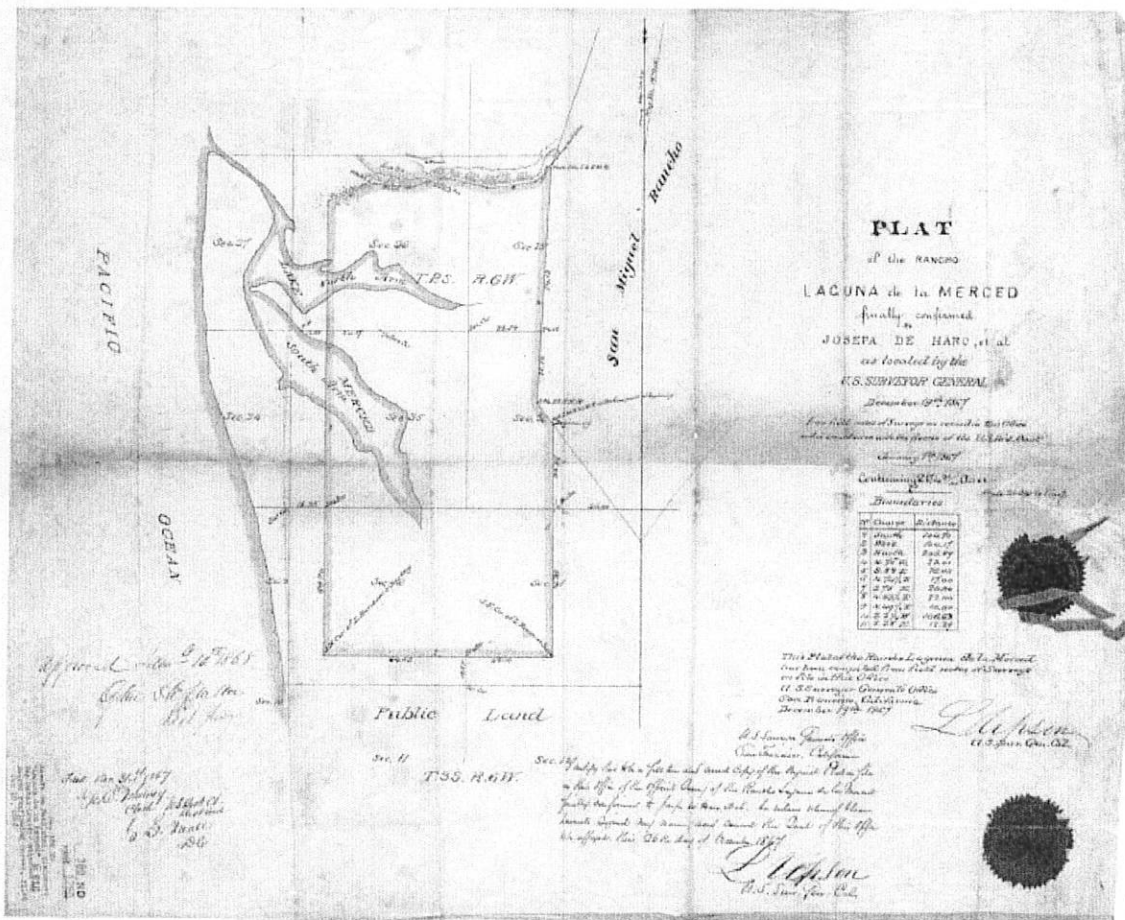
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<http://www.oac.cdlib.org/ark:/13030/hb7h4nb3r2/?order=2&brand=oac4>(accessed 2013 05 230)

EXHIBIT C



File path: S:\15200\15280\15280.000\task_08\11_0714_prg_fig_05.mxd; Date: 07/15/2011; By: irene.skolnik



USGS High Resolution Orthoimagery for San Francisco, California, 2009.

Explanation		BACKGROUND SAMPLE LOCATIONS Pacific Rod and Gun Club San Francisco, California		
•	Soil sample location	⊙	2005 background soil sample (URS)	By: CD
⊕	2010 background soil sample location	⊗	1993 background sediment sample (E&E)	Date: 07/15/2011
△	2010 background sediment sample location	●	1993 background soil sample (E&E)	Project No. 15280.000
✱	2010 background surface water sample location			AMEC Geomatrix
				Figure 5



SITE MAP KEY

- A TRAP HOUSE
- B SHELL HOUSE
- C CLUB HOUSE
- D BBQ HOUSE
- E FORMER CARETAKER'S RESIDENCE
- F INDOOR RIFLE RANGE
- G TRAP FIELDS: 1, 2, 3
- H SKEET FIELDS: 4, 5, 6, 7, 8, & 9
- J STORAGE CONTAINERS
- K MAINTENANCE STORAGE BUILDING
- L RESTROOMS

Approx. W boundary
of Rancho Laguna de la
Merced, per "Map 163"
State of California owns
bed of Lake to West
of this line, up to median
high water mark at time
of Statehood.

PACIFIC ROD & GUN CLUB

The Arnold Law Practice

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**BY EMAIL,
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June 3, 2013

Mr. Alan Friedman
San Francisco Bay Region
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Re: Tentative Order No. R2-2013- for Site Cleanup Requirements and Rescission
of Order No. 94-017, Pacific Rod & Gun Club Lake Merced Site.

Dear Alan:

On behalf of the Pacific Rod & Gun Club, we respectfully submit the enclosed declaration from Frank H. (Bert) Swan. This declaration explains why the SFPUC was in error in its May 17 letter claiming that target fragments were found throughout the site according to the AMEC investigation report. It also explains how the AMEC report does not support the SFPUC's claim that aside from targets, no other asphaltic materials have been observed on site. These are serious misstatements and mischaracterize the facts that exist in the Board's record.

We ask that the original statements in the Tentative Order be retained as to targets and asphaltic materials. We also ask that if the Board changes these statements in the Tentative Order, or if the Tentative Order does not include the State as a responsible party (as addressed in our May 30 letter), that the Tentative Order be moved from the uncontested calendar at the June 12 Board meeting to the contested calendar. Alternatively, we ask that matter be continued to the July 10, 2013 Board meeting so we can see if these items can be worked out with the SFPUC.

The Swan declaration is being submitted with a facsimile signature. An original declaration will be filed with Mr. Swan's original signature as soon as possible.

Mr. Alan Friedman
June 6, 2013
Page 2 of 2

Thank you in advance for your consideration of our May 31, 2013 letter and this letter with Mr. Swan's declaration. Please let me know if you have any questions.

Very truly yours,



James R. Arnold

Encl. – Declaration of Frank H. (Bert) Swan

Cc (w/encl.)(by email only):

Mr. Patrick Gilligan, President, Pacific Rod & Gun Club, Inc.

Mr. Josh Milstein, Office of the City Attorney, City and County of San Francisco

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8 Email: JArnold@arnoldlp.com

9 Attorneys for Pacific Rod & Gun Club, Inc.

10 **CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**
11 **SAN FRANCISCO BAY REGION**

12 **IN RE: TENTATIVE ORDER NO. R2-
13 2013- ____, REVISED SITE CLEANUP
14 REQUIREMENTS and RESCISSION
15 OF ORDER NO. 94-017 FOR PACIFIC
16 ROD AND GUN CLUB AND THE
17 CITY AND COUNTY OF SAN
18 FRANCISCO SAN FRANCISCO
19 PUBLIC UTILITIES COMMISSION**

Case No. CIV468569

**DECLARATION OF
FRANK H. (BERT) SWAN**

Hearing Date: June 12, 2013

20 I, FRANK H. (BERT) SWAN, declare as follows:

21 1. I have been an independent consulting geologist based in San Francisco since
22 2001. From 1985 to 2001, I was Principal Geologist and Vice President of Geomatrix
23 Consultants, Inc. From 1974 to 1985, I was a senior project geologist with Woodward-Clyde
24 Consultants. The primary focus of my work is on the identification and evaluation of geologic
25 hazards. I have more than 30 years of experience reviewing and evaluating technical reports,
26 including sample results, maps, diagrams, aerial photographs, and related documents and other
27 forms of media. A copy of my current resume is attached as Exhibit A.

28 2. As a Director and Member of the Pacific Rod and Gun Club, I am familiar with the
John Muir Drive site. Since 2011, I have reviewed and evaluated various reports, studies, and
other documentation pertaining to the site conditions.

3. I reviewed the letter of May 17, 2013 from the San Francisco Public Utilities
Commission ("SFPUC") to the California Regional Water Quality Control Board. A copy is
attached as Exhibit B. This declaration provides my comments on this letter, first, by identifying

1 the points in the Tentative Order which the SFPUC contests and, secondly, explaining why the
2 SFPUC is incorrect. *In short, the SFPUC is incorrect in asserting that fragments of targets have*
3 *been found throughout the site and that no asphaltic materials other than targets have been found*
4 *on the site.*

5 4. Regarding the *distribution of clay target debris*:

6 a. The Tentative Order states: “Fragments of targets containing PAHs can be
7 found in soil at the Site between the ranges and the Lake.”

8 b. The SFPUC states: “*Our Supplemental Investigation and Health Risk*
9 *Assessment Report submitted to the RWQCB in 2012 observed target fragments*
10 *throughout the site, including the parking lot area upwind of the ranges and the Lake.*”

11 c. The SFPUC asks that the Tentative Order be amended to state: “*Fragments of*
12 *targets containing PAHs can be found in soil across the Site including the parking lot*
13 *behind the ranges.*”

14 (The SFPUC does not provide specific references to substantiate these revisions, such as
15 pages, etc., to the “*Supplemental Investigation and Health Risk Assessment Report*
16 *submitted to the RWQCB*”.)

17
18 5. As to *whether other asphaltic materials with PAHs have been found on the site*:

19 a. The Tentative Order states: “Other asphaltic materials, with PAHs, have been
20 detected in soils on other parts of the Site upwind of the ranges and the Lake.”

21 b. The SFPUC states: “*Based on the results of our Supplemental Investigation and*
22 *Health Risk Assessment Report which included offsite background sampling, and previous*
23 *historical site investigations, no ‘other’ asphaltic materials have been observed onsite.*
24 *This sentence [of the Tentative Order] should be edited to simply indicate that PAHs have*
25 *been detected across the site...*”

26 (The SFPUC does not provide specific references to substantiate these revisions, such as
27 pages, etc., to the “*Supplemental Investigation and Health Risk Assessment Report*
28 *submitted to the RWQCB*.”)

1 6. I reviewed the 592 page “*Supplemental Investigation and Health Risk Assessment*
2 *Report, Pacific Rod and Gun Club, San Francisco, California, Prepared for: City and County of*
3 *San Francisco, California, Prepared by: AMEC Geomatrix, Inc., Oakland, California.*”

4 I reviewed the text, the figures, the diagrams, the sampling reports, and the sampling results.

5 7. The “*Supplemental Investigation and Health Risk Assessment Report*” does not
6 report any clay target debris in the borings in the parking areas to the west of the skeet and trap
7 fields. And, “Asphaltic concrete” (not clay target debris) is reported in two borings to the west of
8 the skeet fields. Exhibit C-1 is an aerial photograph that shows the location of the club facilities,
9 including the ranges, the parking lot, the skeet and trap houses, and the buildings. Exhibit C-2
10 shows the boring locations.

11 a. Clay target debris is reported in borings B10c, B12, C1, C2, C5, C9, C10, C13,
12 C14, D2, D4, D5, D6, D8, and D9 (logs of these boreholes are provided in Exhibit
13 D). The distribution of the clay target debris reported in these borings is consistent
14 with the locations and down-range trajectories of various skeet and trap houses.

15 b. In the parking area to the west of the skeet fields, “asphaltic materials,” were
16 reported in borings B5a and B5b (logs of these borings are provided in Exhibit E).

17 8. Reviewing Table 6, Soil Analytical Data, PAHs (page 2), from the *Report*
18 clearly shows that PAHs are found in the first ½ feet (6 inches) of the sample taken from borings
19 B5a and B5b. A copy of Table 6 is attached as Exhibit F. The B5a boring was in the asphalt-
20 paved area in front of the Shell House, and the B5b boring was in the rear of the building (See
21 Exhs. C-1 and C-2). No clay pigeon debris was found in these borings.

22 9. The results of the soil analyses clearly show that the PAHs at the site are more
23 widely distributed than the clay pigeon debris. These results, combined with the data from
24 borings B5a and B5b, indicate that there may be other sources of PAHs at the site that are not
25 considered in the Report. Other sources of PAHs should be expected to include: runoff from the
26 asphalt-paved parking areas; runoff from the asphalt-shingled roofs; runoff from John Muir
27 Drive; and exhaust fumes associated with traffic along John Muir Drive. For example, the Club
28 is downgradient from John Muir Drive, yet no effort was made to determine if runoff from this

1 asphalt paved street contains PAHs.

2 12. My conclusion is that several statements in the SFPUC's May 17 letter are not
3 supported by any facts in the Report submitted by the SFPUC to the Board. Specifically, these
4 include:

5 a. SFPUC Statement #1: "... target fragments [are found] throughout the site,
6 including the parking lot area upwind of the ranges and the Lake..."

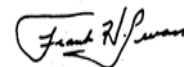
7 This is unsupported. According to the SFPUC's Report, clay target debris was
8 only found at the Fields (ranges) and towards the Lake. The Report does not
9 support the statement suggested by the SFPUC to be added to the Order, namely,
10 "*Fragments of targets containing PAHs can be found in soil across the Site*
11 *including the parking lot behind the ranges.*"

12 b. SFPUC Statement #2 (paraphrased): "*no 'other' asphaltic materials have been*
13 *observed onsite.*"

14 According to the SFPUC's Report, "asphaltic concrete: (3 inches thick)" was
15 found in borings B5a and B5b. According to Table 6, Soil Analytical Data, PAHs,
16 there are PAHs in the top 6 inches of the samples from both borings. My use of
17 the Club shows me that there is asphaltic paving in a large parking area, roadways,
18 and other areas throughout the site.

19 The Report does not support the suggestion by the SFPUC that the Board change
20 the statement in the Tentative Order, "*Other asphaltic materials, with PAHs, have been*
21 *detected in soils on other parts of the Site upwind of the ranges and the Lake*" so that the
22 Tentative Order "*should be edited to simply indicate that PAHs have been detected across*
23 *the site...*"

24 I swear, under penalty of perjury under the laws of the State of California, that the
25 foregoing is true and correct. Executed this 3rd day of June 2013 in San Francisco, California.

26 

27 _____
28 Frank H. (Bert) Swan

EXHIBIT A

FRANK H. (BERT) SWAN
CONSULTING GEOLOGIST

240 Laidley Street
San Francisco, CA 94131

Tel: (415) 282-2370
Mobile: (415) 722-7493
E-mail: bertswan3@gmail.com

Geologic Hazards Assessment
Seismic Geology and Paleoseismology
Neotectonics
Quaternary Geology
Geomorphology

EDUCATION

The Johns Hopkins University, Baltimore, Maryland: Ph.D., Geography and Environmental Engineering, 1975
Denison University, Granville, Ohio: B.A., Geology, 1969

PROFESSIONAL HISTORY

Independent Consulting Geologist, 2001 to present
Geomatrix Consultants, Inc., Vice President and Principal Geologist, 1985 to 2001
Woodward-Clyde Consultants, Senior Project Geologist, 1974 to 1985

REPRESENTATIVE EXPERIENCE

Dr. Swan's 30 years of consulting experience have emphasized regional and site-specific geologic, seismologic, and geophysical studies to identify and evaluate potential geologic hazards. He has directed studies assess potential earthquake hazards for more than 35 existing and proposed dams, and more than 15 nuclear power plants, located in a variety of tectonic environments both in the United States and abroad. He has evaluated earthquake-related hazards including potential earthquake ground motions, surface faulting, soil liquefaction, landslides, and earthquake-induced flooding in both the eastern and western United States, Alaska, Central and South America, the Caribbean, North Africa, Europe, Asia, and the Middle East.

Selected projects include the following:

Seismic Source Characterization, Wyoming Dams (2004). Working in cooperation with the U.S. Bureau of Reclamation's Seismotectonics and Geophysics Group, Dr. Swan reassessed the seismic source characteristics of the South Granite Mountains fault in Wyoming. The work is part of a study to update probabilistic seismic hazard analyses for six Reclamation dams on the North Platte River in Wyoming.

Lauro Dam, Consultant Review Board (2004). Dr. Swan was a member of the Consultant Review Board contracted by the U.S. Bureau of Reclamation to provide independent technical review of their dam safety activities related to seismic stability and seepage resulting from potential fault rupture within the foundation, embankment and abutment of Lauro Dam, California.

Humboldt Bay Power Plant, ISFSI Site, California (2000-2003). Dr. Swan was the Project Manager for geological investigations to assess the potential for surface-fault rupture at the proposed dry cask storage facility for spent nuclear fuel. He also assisted Pacific Gas and Electric Company in preparing and reviewing various sections of the Safety Analysis Report to support their license application to the U.S. Nuclear Regulatory Commission.

Krško NPP, Slovenia (2001-2003). In cooperation with Slovenian and Croatian geologists, seismologists, geophysicists and engineers, Dr. Swan directed studies to: (1) develop a seismotectonic model of the Krško basin; (2) revise the probabilistic seismic hazard assessment for the site; and (3) update the related sections of the USAR for the Krško NPP.

Potter Valley Penstock, Landslide Investigation for Pacific Gas and Electric Company (2001). Dr. Swan excavated and logged test pits and examined boring records to reconstruct the geometry of an actively creeping landslide.

Fault Evaluation, University of California at Berkeley (1999). Dr. Swan participated in geologic mapping and trench studies of the Hayward fault zone as part of an evaluation of the potential for surface fault rupture at Memorial Stadium.

New Carquinez Bridge, California (1999-2001). Dr. Swan participated in the mapping and analysis of the rock conditions at the north anchorage. Investigations included studies to determine the nature and origin of faulting in the vicinity of the anchorage.

Geohazards Mapping, U.S. Government Installations (1997-2001). As part of studies for the U.S. Army Engineering Division, Dr. Swan participated in a series of geologic evaluations to develop estimates of the potential earthquake ground shaking (peak ground acceleration and response spectra), and to evaluate the potential for earthquake-related geologic hazards (surface fault rupture, soil liquefaction, soil differential compaction, landsliding, and flooding).

High Level Nuclear Waste Repository, Yucca Mountain, Nevada (1989-1998). Dr. Swan was Project Manager and Co-Principal Investigator of an extensive geologic mapping and trenching program to evaluate the location and recency of faulting near the prospective surface facilities for the proposed underground repository. He was also a member of the panel of seismic experts that developed seismotectonic models to characterize the regional and local earthquake sources for the probabilistic analyses of the fault displacement hazard and the vibratory ground motion at the proposed repository.

EXHIBIT B



Mr. Bruce H. Wolfe,
 Executive Officer
 California Regional Water Quality Control Board
 1515 Clay Street, Suite 1400
 Oakland, CA 94612

May 17, 2013

Re: Comments on Draft Order No. R2-2013- Revised Site Cleanup Requirements and Rescission of Order No. 94-017 (Pacific Rod and Gun Club, 520 John Muir Drive, San Francisco, CA)

Dear Mr. Wolfe,

I write to provide comments on the above referenced draft site cleanup order on behalf of the San Francisco Public Utilities Commission (SFPUC).

1. Page 2, Item 4 - Site Contamination: Line 4 states that "Fragments of targets containing PAHs can be found in soil at the Site between the ranges and the Lake". Our Supplemental Investigation and Health Risk Assessment Report submitted to the RWQCB in 2012 observed target fragments throughout the site, including the parking lot area upwind of the ranges and the Lake. This sentence should be edited to indicate that; "Fragments of targets containing PAHs can be found in soil across the Site including the parking lot behind the ranges".

2. Page 3, Item 4 - Site Contamination: Line 1 states that "Other asphaltic materials, with PAHs, have been detected in soils on other parts of the Site upwind of the ranges and the Lake". Based on the results of our Supplemental Investigation and Health Risk Assessment Report which included offsite background sampling, and previous historical site investigations, no "other" asphaltic materials have been observed onsite. This sentence should be edited to simply indicate that PAHs have been detected across the site, consistent with comment 1 above.

3. Page 6, Item 19 - Line 1: The reference to State Board Resolution Number 92-49 appears to be incorrect. According to the State Water Resource Control Board website, Resolution 92-49 was not approved by the Office of Administrative Law in 1993. The latest version appears to be Resolution Number 96-079. It also appears that the original Resolution 92-49 was amended on April 26, 1994 and on October 2, 1996, so perhaps the words "as amended" should be added following the reference to Resolution Number 92-49?

Edwin M. Lee
 Mayor

Art Torres
 President

Vince Courtney
 Vice President

Ann Moller Caen
 Commissioner

Francesca Vietor
 Commissioner

Anson Moran
 Commissioner

Harlan L. Kelly, Jr.
 General Manager



4. Page 8, Item 4 - Tasks – Lake Sediment - Completion of Remediation: The draft order proposes a Compliance Date of January 1, 2016 for completion of remedial activities related to Lake sediments and submittal of a completion report documenting these activities. However considering that none of the preliminary work has been conducted, a high level of uncertainty due to lack of investigation data, clarity on amount of required remediation, method of cleanup in a sensitive environment, level of required environmental permitting and level of environmental review makes it impractical to estimate a completion date at this time. Assuming the requested investigations conclude that sediment management or removal is required, a more accurate schedule and due date for implementation of remedial action, and preparation of a completion report could be determined by the RWQCB Executive Officer following completion of the Ecological Risk Assessment and the Remedial Action Plan.

The SFPUC is committed to working with the RWQCB staff and the PRGC to expeditiously implement the tasks in the draft order. Please feel free to contact me or Obiajulu Nzewi at onzewi@sfgwater.org (415 554 1876) with any questions you may have regarding our comments on the draft order.

Sincerely,



Steven R. Ritchie
Assistant General Manager, Water

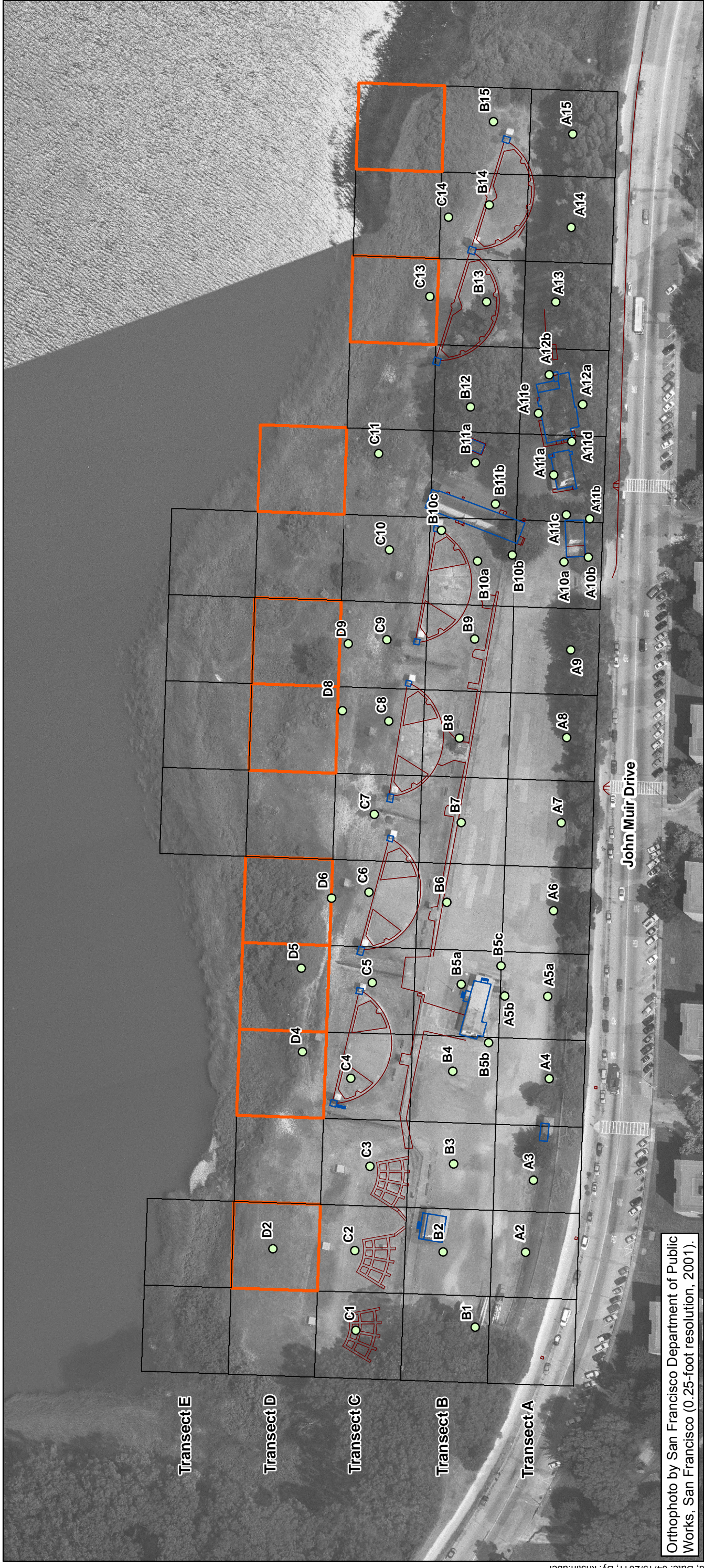
CC: Alan Friedman, RWQCB
Jim Arnold, PRGC

EXHIBIT C-1



PACIFIC ROD & GUN CLUB

EXHIBIT C-2



Orthophoto by San Francisco Department of Public Works, San Francisco (0.25-foot resolution, 2001).

Explanation

- Soil sample location
- Sampling grid
- Confirmation sampling grid
- Building outline
- Concrete structure

Note:
Soil samples collected at 0.5, 1, 1.5, 2, and 3 feet below ground surface by AMEC between November 29 and December 2, 2010.

SOIL SAMPLING LOCATIONS
Pacific Rod and Gun Club
San Francisco, California

By: GFS Date: 04/19/2011 Project No. 15280.000

AMEC Geomatrix

Figure 2b

EXHIBIT D

PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. B10c	
BORING LOCATION: Lat: 37.716731; Long: -122.495103		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/29/10	DATE FINISHED: 11/29/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: T. K tzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface E evat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
1	B10c-0.5 B10c-1.0			0	POORLY-GRADED SAND (SP): dark brown (10YR 3/3), 95% f ne to med um sand, 5% f nes, conta ns c ay p geon debr s no debr s present	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard. <u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
2	B10c-1.5 B10c-2.0			0		
3	B10c-3.0			0		
4						
5					Bottom of bor ng at 5.0 feet	Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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OAKBORE (REV. 6/2008)

PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. B12	
BORING LOCATION: Lat: 37.716518; Long: -122.494672		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/29/10	DATE FINISHED: 11/29/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6600		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: G. Stem er	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface E evat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
1	B12-05 B12-10			0	ORGANIC MATTER and CLAY PIGEON DEBRIS: (4 nches th ck)	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard. <u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
2	B12-15 B12-20			0	SILTY SAND (SM): dark o ve brown (2.5Y 3/3), mo st, 80% f ne sand, 20% nonp ast c f nes, conta ns organ c matter (root ets)	
3	B12-30			0	POORLY-GRADED SAND (SP): o ve brown (2.5Y 4/4), mo st, 95% f ne to med um sand, 5% f nes	
4				0		
5					Bottom of bor ng at 5.0 feet	Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. C1	
BORING LOCATION: Lat: 37.717809; Long: -122.498026		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Vironex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dual-tube system [5' x 2"]		LOGGED BY: T. Klitzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation: Ground surface	
1	C1-0.5 C1-1.0			0	POORLY-GRADED SAND (SP): dark yellowish brown (10YR 4/6), 95% fine to medium sand, 5% fines, contains clay pigeon debris no debris present	OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard. <u>Boring location</u> coordinates are based on North American Datum of 1983.
2	C1-1.5 C1-2.0			0		
3	C1-3.0			0		
4				0		
5					Bottom of boring at 5.0 feet	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. C2	
BORING LOCATION: Lat: 37.717730; Long: -122.497722		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Vironex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dual-tube system [5' x 2"]		LOGGED BY: T. Klitzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Ground surface	REMARKS
	Sample No.	Sample	Blows/ Foot			
1	C2-0.5 C2-1.0			0	POORLY-GRADED SAND with GRAVEL (SP): dark yellowish brown (10YR 4/6), moist, 95% find to medium sand, 5% fines, contains clay pigeon debris ↓ no debris present	OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard. <u>Boring location</u> coordinates are based on North American Datum of 1983.
2	C2-1.5 C2-2.0			0		
3	C2-3.0			0		
4				0		
5					Bottom of boring at 5.0 feet	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. C5	
BORING LOCATION: Lat: 37.717403; Long: -122.496729		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: T. K tzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface E evat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
0				0	CLAY PIGEON DEBRIS w th SAND	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard.
1	C5-0.5 C5-1.0			0	POORLY-GRADED SAND (SP): dark brown (10YR 3/3), mo st, 95% f ne to med um sand, 5% f nes, no depr s present	
2	C5-1.5 C5-2.0			0		
3	C5-3.0			0		<u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
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5					Bottom of bor ng at 5.0 feet	Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. C9	
BORING LOCATION: Lat: 37.717008; Long: -122.495447		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Vironex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dual-tube system [5' x 2"]		LOGGED BY: T. Klitzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation: Ground surface	
0				0	CLAY PIGEON DEBRIS with SILT and SAND	
1	C9-0.5	C9-1.0		0	POORLY-GRADED SAND (SP): dark brown (10YR 3/3), 95% fine to medium sand, 5% fines, contains clay pigeon debris	OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
2	C9-1.5	C9-2.0		0	no debris present	
3	C9-3.0			0		Boring location coordinates are based on North American Datum of 1983.
4				0		
5					Bottom of boring at 5.0 feet	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. C10	
BORING LOCATION: Lat: 37.716908; Long: -122.495109		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/29/10	DATE FINISHED: 11/29/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: T. K tzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Ground surface	REMARKS
	Sample No.	Sample Blows/ Foot				
1	C10-05 C10-10			0	SILTY GRAVEL w th SAND (GM): very dark gray sh brown (10YR 3/2), mo st, 60% f ne grave , 20% f ne to coarse sand, 20% nonp ast c f nes, conta ns c ay p geon debr s	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard. <u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983. Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
2	C10-15 C10-20			0	POORLY-GRADED SAND (SP): dark brown (10YR 3/3), mo st, 95% f ne to med um sand, 5% f nes, no debr s present	
3	C10-30			0		
4				0		
5				0	Bottom of bor ng at 5.0 feet	
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13						
14						
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. C13	
BORING LOCATION: Lat: 37.716527; Long: -122.494201		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Vironex, Inc.		DATE STARTED: 11/29/10	DATE FINISHED: 11/29/10
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dual-tube system [5' x 2"]		LOGGED BY: T. Klitzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface Eevat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
0	C13-05	C13-10		0	POORLY-GRADED SAND (SP): dark redd sh brown (5YR 3/2), mo st, 95% f ne to med um sand, 5% f nes, conta ns c ay p geon debr s	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard. <u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
1	C13-15	C13-20		0	no debr s present	
2	C13-30			0	dark ye ow sh brown (10YR 4/6)	
3				0		
4						
5					Bottom of bor ng at 5.0 feet	Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. C14	
BORING LOCATION: Lat: 37.716389; Long: -122.493924		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/29/10	DATE FINISHED: 11/29/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: T. K tzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface Eevat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
0	C14-05	C14-10		0	POORLY-GRADED SAND (SP): dark redd sh brown (5YR 3/2), mo st, 95% f ne to med um sand, 5% f nes, conta ns c ay p geon debr s	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard. <u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
1	C14-15	C14-20		0		
2				0	↓ dark ye ow sh brown (10YR 4/6), no debr s present	
3	C14-30			0		
4				0		
5				0	Bottom of bor ng at 5.0 feet	Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. D2	
BORING LOCATION: Lat: 37.717974; Long: -122.497610		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Vironex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dual-tube system [5' x 2"]		LOGGED BY: T. Klitzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Samp e No.	Samp e B ows/ Foot				
0				0	Surface Elevation: Ground surface	
1	D2-0.5 D2-1.0			0	POORLY-GRADED SAND (SP): dark ye ow sh brown (10YR 4/4), mo st, 95% f ne to med um sand, 5% f nes, conta ns c ay p geon debr s	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard. <u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
2	D2-1.5 D2-2.0			0	no debr s present	
3	D2-3.0			0		
4						
5					Bottom of bor ng at 5.0 feet	Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. D4	
BORING LOCATION: Lat: 37.717684; Long: -122.496901		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: T. K tzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface E evat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
1	D4-0.5 D4-1.0			0	CLAY PIGEON DEBRIS w th SAND	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard. <u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
2	D4-1.5 D4-2.0			0		
3	D4-3.0			0	POORLY-GRADED SAND (SP): dark brown (10YR 3/3), mo st, 95% f ne to med um sand, 5% f nes, no debr s present	Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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5					Bottom of bor ng at 5.0 feet	
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. D5	
BORING LOCATION: Lat: 37.717601; Long: -122.496583		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: T. K tzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface E evat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
1	D5-0.5 D5-1.0				CLAY PIGEON DEBRIS w th SAND	<u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
2	D5-1.5 D5-2.0				POORLY-GRADED SAND (SP): dark brown (10YR 3/3), mo st, 95% f ne to med um sand, 5% f nes, no depr s present	
3	D5-3.0				Bottom of bor ng at 5.0 feet	
4						Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. D6	
BORING LOCATION: Lat: 37.717439; Long: -122.496355		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: T. K tzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface E evat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
1	D6-0.5 D6-1.0			0	CLAY PIGEON DEBRIS w th SAND	<p>OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard.</p> <p><u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.</p> <p>Advanced adjacent compan on bor ng to 4 feet bgs to co ect add t ona mater a .</p> <p>Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.</p>
2	D6-1.5 D6-2.0			0	POORLY-GRADED SAND (SP): dark ye ow sh brown (10YR 4/4), mo st, 95% f ne to med um sand, 5% f nes, no depr s present	
3	D6-3.0			0		
4				0		
5					Bottom of bor ng at 5.0 feet	
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. D8	
BORING LOCATION: Lat: 37.717214; Long: -122.495659		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Vironex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dual-tube system [5' x 2"]		LOGGED BY: T. Klitzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface E evat on: Ground surface	REMARKS
	Sample No.	Sample	Blows/ Foot			
1	D8-0.5 D8-1.0			0	CLAY PIGEON DEBRIS w th SAND and SILT	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard. <u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
2	D8-1.5 D8-2.0			0	POORLY-GRADED SAND (SP): dark brown (10YR 3/3), mo st, 95% f ne to med um sand, 5% f nes, no debr s present	
3	D8-3.0			0		
4				0	↓ brown (10YR 4/3)	
5				0		
5					Bottom of bor ng at 5.0 feet	Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. D9	
BORING LOCATION: Lat: 37.717129; Long: -122.495413		ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: Vironex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6610 DT		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dual-tube system [5' x 2"]		LOGGED BY: T. Klitzke	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ Foot		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation: Ground surface	
0				0	CLAY PIGEON DEBRIS with SILT and SAND	OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard. <u>Boring location</u> coordinates are based on North American Datum of 1983.
1	C8-0.5	C8-1.0		0	POORLY-GRADED SAND (SP): dark brown (10YR 3/3), moist, 95% fine to medium sand, 5% fines, contains clay pigeon debris no debris present	
2	C8-1.5	C8-2.0		0		
3	C8-3.0			0		
5					Bottom of boring at 5.0 feet	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface.
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EXHIBIT E

PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. B5a	
BORING LOCATION: Lat: 37.717137; Long: -122.496849		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6600		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: N. F tch	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface E evat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
0	B5a-0.5	B5a-1.0		0	ASPHALTIC CONCRETE: (3 nches th ck)	OVM = M n RAE 2000 PID ca brated w th 100 ppm sobuty ene standard. <u>Bor ng ocat on</u> coord nates are based on North Amer can Datum of 1983.
1	B5a-1.5	B5a-2.0		0	AGGREGATE BASE AND ORGANIC MATTER: (2 nches th ck)	
2	B5a-2.5	B5a-3.0		0	CLAYEY SAND (SC): dark ye ow sh brown (10YR 4/6), mott ed w th ye ow sh red (5YR 4/6), mo st, 65% f nd sand, 35% med um p ast c ty f nes, no organ c matter present	
3	B5a-3.0			0		
4				0		
5					Bottom of bor ng at 5.0 feet	Boreho e destroyed us ng Type I-II neat cement grout p aced from tota depth to ground surface.
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PROJECT: PACIFIC ROD AND GUN CLUB San Francisco, California		Log of Boring No. B5b	
BORING LOCATION: Lat: 37.717115; Long: -122.497107		ELEVATION AND DATUM: Not surveyed; datum s ground surface	
DRILLING CONTRACTOR: V ronex, Inc.		DATE STARTED: 11/30/10	DATE FINISHED: 11/30/10
DRILLING METHOD: D rect push		TOTAL DEPTH (ft.): 5.0	MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6600		DEPTH TO WATER (ft.)	FIRST NA
SAMPLING METHOD: Dua -tube system [5' x 2"]		LOGGED BY: N. F tch	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: C. Dowman	REG. NO. PG 8659

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): co or, mo st, % by wt., p ast. dens ty, structure, cementat on, react. w/HC , geo. nter. Surface Eevat on: Ground surface	REMARKS
	Samp e No.	Samp e B ows/ Foot				
0	B5b-0.5	B5b-1.0		0	ASPHALTIC CONCRETE: (3 inches thick)	OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard. <u>Boring location</u> coordinates are based on North American Datum of 1983.
1	B5b-1.5	B5b-2.0		0	AGGREGATE BASE: (1 inch thick)	
2				0	CLAYEY SAND (SC): olive brown (2.5Y 4/4) mottled with dark reddish brown (5YR 3/4), moist, 80% find sand, 20% medium plasticity fines	
3	B5b-3.0			0		
5					Bottom of boring at 5.0 feet	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface.
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EXHIBIT F

TABLE 6

SOIL ANALYTICAL DATA: PAHs¹
Pacific Rod and Gun Club
San Francisco, California

Results reported in micrograms per kilogram (µg/kg)

Sample Location	Sample ID	Depth (ft bgs)	Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) Anthracene	Benzo(a) Pyrene	Benzo(b) Fluoranthene	Benzo(g,h,i) Perylene	Benzo(k) Fluoranthene	Chrysene	Dibenz(a,h) Anthracene	Fluoranthene	Fluorene	Indeno-(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	BaPe ²
Benzo(a)Pyrene Potency Equivalent Factor (PEF)	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.01	0.34	NA	NA	0.1	NA	NA	NA	NA
Pacific Rod and Gun Club Samples																				
A2	A2-0.5 <60	0.5	11/30/2010	500	<200	420	5200	9700	7900	6600	5900	7100	1800	4900	<200	5900	<200	1600	6900	13000
A2	A2-1.0 <60	1	11/30/2010	<5	<5	<5	36	57	66	44	30	50	13	38	<5	33	<5	12	43	78
A2	A2-1.5 <60	1.5	11/30/2010	<5	<5	<5	11	14	17	11	7.3	13	<5	9.8	<5	9.8	<5	<5	11	19
A3	A3-0.5 <60	0.5	11/30/2010	5.2	<5	11	73	120	160	77	48	110	23	76	<5	71	<5	25	94	160
A3	A3-1.0 <60	1	11/30/2010	<4.9	<4.9	<4.9	8.8	11	15	9.1	5.2	9.8	<4.9	7.6	<4.9	8.1	<4.9	<4.9	8.3	16
A3	A3-1.5 <60	1.5	11/30/2010	<5	<5	<5	10	12	14	9.6	6.9	11	<5	9.4	<5	8.3	<5	<5	11	17
A4	A4-0.5 <60	0.5	11/30/2010	7400	<2000	8800	85000	140000	120000	99000	99000	110000	30000	94000	<2000	95000	<2000	33000	110000	191000
A4	A4-1.0 <60	1	11/30/2010	180	<50	170	2000	3300	3800	2400	1300	2400	610	2100	<50	2000	<50	620	2300	4400
A4	A4-1.5 <60	1.5	11/30/2010	76	<25	73	790	1300	1400	930	600	970	210	870	<25	780	<25	260	920	1700
A4	A4-3.0 <60	3	11/30/2010	<5	<5	<5	13	19	22	14	11	15	<5	13	<5	11	<5	<5	15	26
A5a	A5a-0.5 <60	0.5	11/30/2010	130	<25	100	1500	750	2500	1800	1900	2100	530	1600	27	1600	<25	420	1800	1700
A5a	A5a-1.0 <60	1	11/30/2010	<5	<5	<5	<5	6.3	5	5.1	5.7	6	<5	<5	<5	5.4	<5	<5	5.2	9
A5a	A5a-1.5 <60	1.5	11/30/2010	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	ND
A5b	A5b-0.5 <60	0.5	11/30/2010	25	<5	25	320	600	560	440	390	480	130	330	6.5	380	5.9	120	420	810
A5b	A5b-1.0 <60	1	11/30/2010	9.3	<4.9	39	220	290	280	190	230	260	58	350	6.1	180	<4.9	160	330	400
A5b	A5b-1.5 <60	1.5	11/30/2010	<5	<5	<5	11	22	19	20	16	17	5.7	14	<5	16	<5	5	16	30
A6	A6-0.5 <60	0.5	11/30/2010	<5	<5	7.3	64	89	110	59	46	87	17	79	<5	51	<5	30	91	120
A6	A6-1.0 <60	1	11/30/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A6	A6-1.5 <60	1.5	11/30/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A7	A7-0.5 <60	0.5	11/30/2010	<99	<99	<99	160	210	240	150	120	190	<99	160	<99	120	<99	<99	180	290
A7	A7-1.0 <60	1	11/30/2010	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	ND
A7	A7-1.5 <60	1.5	11/30/2010	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	ND
A8	A8-0.5 <60	0.5	11/30/2010	<150	<150	<150	380	560	800	230	260	570	<150	370	<150	190	<150	170	540	750
A8	A8-1.0 <60	1	11/30/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A8	A8-1.5 <60	1.5	11/30/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A9	A9-0.5 <60	0.5	11/29/2010	<25	<25	<25	83	120	140	85	54	110	26	98	<25	76	<25	39	150	170
A9	A9-1.0 <60	1	11/29/2010	<820	<820	<820	5900	10000	10000	7000	4900	7500	1900	6100	<820	6100	<820	1900	8500	13000
A9	A9-1.5 <60	1.5	11/29/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A10a	A10a-0.5 <60	0.5	11/29/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A10a	A10a-1.0 <60	1	11/29/2010	<4.9	<4.9	<4.9	8.6	13	15	9.4	5.5	10	<4.9	7.9	<4.9	8.3	<4.9	<4.9	12	18
A10a	A10a-1.5 <60	1.5	11/29/2010	<5	<5	<5	<5	5.3	5.9	<5	<5	<5	<5	<5	<5	<5	<5	<5	5.2	8
A10b	A10b-0.5 <60	0.5	11/29/2010	<250	<250	<250	1300	2300	1900	1600	1600	1700	600	1600	<250	1400	<250	550	1800	3100
A10b	A10b-1.0 <60	1	11/29/2010	55	<5	38	380	660	450	410	530	500	150	430	13	400	8.6	170	510	890
A10b	A10b-1.5 <60	1.5	11/29/2010	8.9	<5	6.5	63	110	88	74	81	86	22	77	<5	73	<5	31	92	150
A10b	A10b-3.0 <60	3	11/29/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A11a	A11a-0.5 <60	0.5	11/29/2010	660	<500	780	5900	12000	11000	5700	5300	8300	1800	6000	<500	5400	<500	1900	8500	15000
A11a	A11a-1.0 <60	1	11/29/2010	610	<500	700	5400	11000	11000	5300	5100	7800	1600	6300	<500	5000	<500	1800	7800	14000
A11a	A11a-1.5 <60	1.5	11/29/2010	710	<470	710	6500	11000	13000	7700	4200	8200	2200	7000	<470	6400	<470	2300	9400	15000
A11a	A11a-3.0 <60	3	11/29/2010	<5	<5	<5	5.4	6.6	7.9	<5	<5	5.1	<5	<5	<5	<5	<5	<5	5.2	9.3
A11b	A11b-0.5 <60	0.5	11/29/2010	120	<99	110	1100	2000	1500	1300	1400	1600	390	1400	<99	1200	<99	510	1600	2700
A11b	A11b-1.0 <60	1	11/29/2010	150	<99	130	1300	2200	1700	1400	1700	1700	490	1500	<99	1300	<99	550	1800	3000
A11b	A11b-1.5 <60	1.5	11/29/2010	16	<4.9	15	140	230	180	140	170	180	51	160	<4.9	130	<4.9	67	190	310
A11b	A11b-3.0 <60	3	11/29/2010	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	ND
A11c	A11c-0.5 <60	0.5	11/29/2010	690	<200	690	6700	12000	13000	8200	4300	8300	2200	7100	<200	6900	<200	2300	9900	16000
A11c	A11c-1.0 <60	1	11/29/2010	<5	<5	6.5	44	62	75	43	28	52	13	55	<5	36	<5	24	68	85
A11c	A11c-1.5 <60	1.5	11/29/2010	<5	<5	<5	27	52	51	26	27	40	7.8	29	<5	23	<5	9.1	36	68
A11c	A11c-3.0 <60	3	11/29/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A11d	A11d-0.5 <60	0.5	11/30/2010	55	<50	51	440	690	600	460	570	590	150	570	<50	430	<50	220	660	950
A11d	A11d-1.0 <60	1	11/30/2010	<4.9	<4.9	<4.9	35	58	49	42	48	47	12	43	<4.9	40	<4.9	17	51	80
A11d	A11d-1.5 <60	1.5	11/30/2010	<5	<5	<5	16	24	24	16	17	19	5.8	19	<5	17	<5	7.7	20	34

TABLE 6

SOIL ANALYTICAL DATA: PAHs¹
Pacific Rod and Gun Club
San Francisco, California

Results reported in micrograms per kilogram (µg/kg)

Sample Location	Sample ID	Depth (ft bgs)	Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) Fluoranthene	Benzo (g,h,i) Perylene	Benzo (k) Fluoranthene	Chrysene	Dibenz (a,h) Anthracene	Fluoranthene	Fluorene	Indeno-(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	BaPe ²
Benzo(a)Pyrene Potency Equivalent Factor (PEF)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.34	NA	NA	0.1	NA	NA	NA	NA
A11e	A11e-0.5 <60	0.5	11/30/2010	<50	<50	<50	230	390	300	250	310	300	95	280	<50	250	<50	99	NA	NA
A11e	A11e-1.0 <60	1	11/30/2010	<5	<5	<5	<5	6.5	5.6	<5	<5	5.6	<5	<5	<5	<5	<5	<5	5.6	9
A11e	A11e-1.5 <60	1.5	11/30/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A12a	A12a-0.5 <60	0.5	11/29/2010	34	<25	34	290	560	560	270	310	430	75	360	<25	260	<25	110	450	730
A12a	A12a-1.0 <60	1	11/29/2010	<5	<5	<5	<5	22	21	16	16	13	6.3	13	<5	17	<5	<5	16	31
A12a	A12a-1.5 <60	1.5	11/29/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A12b	A12b-0.5 <60	0.5	11/29/2010	<500	<500	<500	4400	7300	8600	5300	2900	5600	1400	4800	<500	4400	<500	1600	6300	9900
A12b	A12b-1.0 <60	1	11/29/2010	<5	<5	<5	34	60	51	42	46	49	12	49	<5	39	<5	22	60	82
A12b	A12b-1.5 <60	1.5	11/29/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
A13	A13-0.5 <60	0.5	11/29/2010	200	<99	220	2000	3900	3400	2300	1400	2800	640	2000	<99	1900	<99	630	2600	5000
A13	A13-1.0 <60	1	11/29/2010	<5	<5	<5	67	97	93	74	64	69	24	56	<5	70	<5	17	70	140
A13	A13-1.5 <60	1.5	11/29/2010	<5	<5	<5	24	40	39	29	24	25	9.4	19	<5	29	<5	6.3	26	55
A13	A13-3.0 <60	3	11/29/2010	<5	<5	<5	6.2	12	8.7	6.5	7	5.9	<5	5.2	<5	7.7	<5	<5	6.4	16
A14	A14-0.5 <60	0.5	11/29/2010	4600	<2000	4900	45000	83000	79000	53000	35000	61000	11000	45000	<2000	43000	<2000	14000	59000	110000
A14	A14-1.0 <60	1	11/29/2010	270	<99	280	2700	5100	5000	3200	2200	3600	920	2800	<99	2600	<99	840	3600	6700
A14	A14-1.5 <60	1.5	11/29/2010	<5	<5	<5	20	27	31	19	19	19	7.3	23	<5	21	<5	8.4	25	39
A14	A14-3.0 <60	3	11/29/2010	<5	<5	<5	9.7	16	14	10	9.4	9.5	<5	9.5	<5	12	<5	<5	11	21
A15	A15-0.5 <60	0.5	11/29/2010	230	<200	230	2200	3700	4400	2600	1500	2800	720	2300	<200	2200	<200	750	3400	5000
A15	A15-1.0 <60	1	11/29/2010	140	<50	140	1100	2200	2200	970	1100	1600	300	1300	<50	900	<50	440	1600	2800
A15	A15-1.5 <60	1.5	11/29/2010	290	<100	240	2100	3500	3700	2200	1800	2600	620	2300	<100	2000	<100	830	3200	4700
A15	A15-3.0 <60	3	11/29/2010	<5	<5	<5	28	36	47	21	17	31	6.3	36	<5	18	<5	15	37	49
B1	B1-0.5 <60	0.5	11/30/2010	<57	<57	<57	240	350	350	190	130	310	<57	280	<57	170	<57	100	350	450
B1	B1-1.0 <60	1	11/30/2010	<5	<5	8.6	66	85	93	71	76	83	23	84	<5	70	<5	37	84	120
B1	B1-1.5 <60	1.5	11/30/2010	<4.9	<4.9	<4.9	6.6	8.6	8.1	6.9	8.1	8.2	<4.9	7	<4.9	6.4	<4.9	<4.9	7.6	12
B2	B2-0.5 <60	0.5	11/30/2010	<4.9	<4.9	<4.9	50	75	85	65	67	74	18	54	<4.9	61	<4.9	18	65	110
B2	B2-1.0 <60	1	11/30/2010	<5	<5	<5	<5	5.9	5.1	5	6.1	5.4	<5	<5	<5	<5	<5	<5	<5	8
B2	B2-1.5 <60	1.5	11/30/2010	<5	<5	<5	5	6.7	7	5.8	7	6.5	<5	<5	<5	5.6	<5	<5	5.5	10
B3	B3-0.5 <60	0.5	12/2/2010	<4.9	<4.9	<4.9	17	28	25	24	25	25	5	16	<4.9	23	<4.9	5.7	21	39
B3	B3-1.0 <60	1	12/2/2010	<5	<5	<5	5.2	8.1	7.2	6.6	7.5	7.7	<5	<5	<5	5.5	<5	<5	5.7	12
B3	B3-1.5 <60	1.5	12/2/2010	<5	<5	<5	<5	<5	5.6	<5	<5	5	<5	<5	<5	5.6	<5	<5	<5	5
B4	B4-0.5 <60	0.5	11/30/2010	<250	<250	<250	510	860	620	740	610	710	<250	390	<250	570	<250	<250	540	1100
B4	B4-1.0 <60	1	11/30/2010	<5	<5	<5	14	25	17	16	18	19	5.7	14	<5	14	<5	5.4	20	33
B4	B4-1.5 <60	1.5	11/30/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
B5a	B5a-0.5 <60	0.5	11/30/2010	5.5	<4.9	9.1	99	170	130	110	120	130	35	110	<4.9	100	<4.9	39	130	230
B5a	B5a-1.0 <60	1	11/30/2010	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	ND
B5a	B5a-1.5 <60	1.5	11/30/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
B5b	B5b-0.5 <60	0.5	11/30/2010	<5	<5	<5	9.7	18	13	14	14	14	<5	10	<5	12	<5	<5	13	24
B5b	B5b-1.0 <60	1	11/30/2010	<5	<5	<5	<5	7.9	5.2	6.4	6.7	6.4	<5	<5	<5	5.4	<5	<5	6	11
B5b	B5b-1.5 <60	1.5	11/30/2010	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	ND
B5c	B5c-0.5 <60	0.5	11/30/2010	<2500	<2500	6400	23000	24000	24000	15000	21000	27000	3700	48000	<2500	15000	<2500	23000	40000	34000
B5c	B5c-1.0 <60	1	11/30/2010	<4.9	<4.9	7.5	30	31	32	19	27	34	8	60	<4.9	19	<4.9	30	54	45
B5c	B5c-1.5 <60	1.5	11/30/2010	<5	<5	<5	5.6	<5	6	<5	<5	<5	<5	8.9	<5	<5	<5	7.4	7.4	5
B6	B6-0.5 <60	0.5	11/30/2010	340	<300	370	3800	6400	5500	4800	5200	5300	1500	4600	<300	4500	<300	1800	5600	8900
B6	B6-1.0 <60	1	11/30/2010	<5	<5	<5	41	72	70	64	60	60	19	51	<5	60	<5	19	63	100
B6	B6-1.5 <60	1.5	11/30/2010	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	ND
B7	B7-0.5 <60	0.5	11/30/2010	200	<130	220	2500	4200	5200	2900	1700	3500	800	2800	<130	2300	<130	950	3300	5700
B7	B7-1.0 <60	1	11/30/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
B7	B7-1.5 <60	1.5	11/30/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
B8	B8-0.5 <60	0.5	11/30/2010	1200	<500	1200	13000	20000	24000	14000	8100	15000	3800	14000	<500	12000	<500	4500	15000	27000
B8	B8-1.0 <60	1	11/30/2010	72	<25	56	680	1200	1500	740	580	860	210	740	<25	680	<25	220	860	1600
B8	B8-1.5 <60	1.5	11/30/2010	18	<5	13	180	340	420	250	140	230	67	210	<5	230	<5	59	240	460
B8	B8-3.0 <60	3	11/30/2010	8.8	<5	5.7	79	150	180	94	65	110	24	87	<5	86	<5	25	100	200

TABLE 6

SOIL ANALYTICAL DATA: PAHs¹
Pacific Rod and Gun Club
San Francisco, California

Results reported in micrograms per kilogram (µg/kg)

Sample Location	Sample ID	Depth (ft bgs)	Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) Fluoranthene	Benzo (g,h,i) Perylene	Benzo (k) Fluoranthene	Chrysene	Dibenz (a,h) Anthracene	Fluoranthene	Fluorene	Indeno-(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	BaPe ²
Benzo(a)Pyrene Potency Equivalent Factor (PEF)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1	0.1	NA	0.1	0.01	0.34	NA	NA	0.1	NA	NA	NA	NA
B9	B9-0.5 <60	0.5	11/29/2010	480	<200	NA	2900	3800	3400	2400	3200	3600	880	4600	<200	2300	<200	2300	4700	5300
B9	B9-1.0 <60	1	11/29/2010	64	<5	64	300	330	340	190	260	340	75	500	8.5	180	<5	270	480	467
B9	B9-1.5 <60	1.5	11/29/2010	<5	<5	<5	9.4	15	14	11	13	13	<5	11	<5	11	<5	<5	14	21
B10a	B10a-0.5 <60	0.5	11/29/2010	62	<5	62	630	1000	970	730	800	900	260	870	<50	660	<50	350	990	1400
B10a	B10a-1.0 <60	1	11/29/2010	6	<5	6	55	94	76	64	74	75	23	71	<5	59	<5	28	81	130
B10a	B10a-1.5 <60	1.5	11/29/2010	<5	<5	<5	<5	5.2	<5	<5	<5	5.3	<5	5.1	<5	<5	<5	<5	5.8	7
B10b	B10b-0.5 <60	0.5	11/29/2010	6000	<2500	6000	59000	100000	110000	64000	38000	71000	20000	63000	<2500	55000	<2500	21000	82000	130000
B10b	B10b-1.0 <60	1	11/29/2010	110	<110	110	1000	1700	1800	1300	360	1300	360	1100	<110	1100	<110	370	1500	2300
B10b	B10b-1.5 <60	1.5	11/29/2010	5.5	<5	5.5	54	89	110	64	36	67	20	57	<5	54	<5	19	81	120
B10b	B10b-3.0 <60	3	11/29/2010	<5	<5	<5	37	60	63	42	27	44	11	36	<5	33	<5	12	43	80
B10c	B10c-0.5 <60	0.5	11/29/2010	<5000	<5000	<5000	54000	80000	89000	56000	34000	63000	14000	55000	<5000	43000	<5000	17000	59000	110000
B10c	B10c-1.0 <60	1	11/29/2010	590	<250	490	5200	8900	6900	5800	6500	6800	510	5800	<250	5300	<250	2200	6800	12000
B10c	B10c-1.5 <60	1.5	11/29/2010	150	<99	120	1400	2400	1900	1600	1800	1800	510	1500	<99	1500	<99	470	1800	3300
B10c	B10c-3.0 <60	3	11/29/2010	<5	<5	<5	24	38	49	27	18	30	8.1	26	<5	23	<5	9.1	31	52
B11a	B11a-0.5 <60	0.5	11/29/2010	3100	<1800	3400	28000	56000	52000	31000	27000	38000	9800	28000	<1800	29000	<1800	7900	36000	73000
B11a	B11a-1.0 <60	1	11/29/2010	610	<250	540	5400	9700	10000	6900	4600	7100	1800	5800	<250	5600	<250	1900	8300	13000
B11a	B11a-1.5 <60	1.5	11/29/2010	85	<25	80	810	1400	1700	990	550	1000	290	910	<25	830	<25	290	1200	2000
B11a	B11a-3.0 <60	3	11/29/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
B11b	B11b-0.5 <60	0.5	11/29/2010	4700	<2500	4300	42000	70000	76000	50000	33000	52000	13000	43000	<2500	43000	<2500	14000	62000	94000
B11b	B11b-1.0 <60	1	11/29/2010	54	<25	55	460	750	840	550	350	570	150	510	<25	460	<25	160	680	1000
B11b	B11b-1.5 <60	1.5	11/29/2010	65	<25	71	510	940	980	460	430	670	140	590	<25	410	<25	180	720	1200
B11b	B11b-3.0 <60	3	11/29/2010	<5	<5	<5	<5	<5	6.5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7.8
B12	B12-0.5 <60	0.5	11/29/2010	<1200	<1200	1300	8900	18000	16000	9600	9600	12000	2700	8800	<1200	8800	<1200	2600	11000	23000
B12	B12-1.0 <60	1	11/29/2010	34	<9.9	30	330	610	670	440	230	430	120	330	<9.9	380	<9.9	120	510	820
B12	B12-1.5 <60	1.5	11/29/2010	<4.9	<4.9	<4.9	29	52	41	38	36	40	11	29	<4.9	35	<4.9	10	38	70
B12	B12-3.0 <60	3	11/29/2010	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
B13	B13-0.5 <60	0.5	11/29/2010	190	<120	180	2200	4000	3000	2700	2400	3100	900	2000	<120	2200	<120	780	2800	5300
B13	B13-1.0 <60	1	11/29/2010	17	<5	49	320	130	460	350	350	400	120	430	9.4	300	5.3	210	450	320
B13	B13-1.5 <60	1.5	11/29/2010	<5	<5	<5	9.3	13	11	9.8	9.3	13	<5	11	<5	8.5	<5	<5	14	18
B14	B14-0.5 <60	0.5	11/29/2010	1800	<1000	2000	27000	45000	48000	32000	15000	34000	8300	24000	<1000	24000	<1000	8200	32000	60000
B14	B14-1.0 <60	1	11/29/2010	29	<5	29	290	540	610	390	190	370	110	280	6.3	350	<5	100	330	7300
B14	B14-1.5 <60	1.5	11/29/2010	<5	<5	<5	5.8	7.5	8.1	6	<5	6.6	<5	<5	<5	5	<5	<5	5.6	11
B15	B15-0.5 <60	0.5	11/29/2010	<99	<99	<99	750	1300	750	540	270	1400	150	330	<99	250	<99	250	1100	1600
B15	B15-1.0 <60	1	11/29/2010	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND
B15	B15-1.5 <60	1.5	11/29/2010	450	<210	340	3400	6400	6500	4400	2900	4000	1200	3400	<210	3800	<210	1100	3700	8500
B15	B15-3.0 <60	3	11/29/2010	780	<250	390	3600	7400	6800	5100	3100	4600	1300	3200	<250	3900	<250	1100	4300	9600
C1	C1-0.5 <60	0.5	11/30/2010	33	<25	33	370	640	750	420	340	510	130	410	<25	400	<25	130	480	880
C1	C1-1.0 <60	1	11/30/2010	<4.9	<4.9	<4.9	17	21	29	14	11	22	<4.9	20	<4.9	13	<4.9	8.1	22	29
C1	C1-1.5 <60	1.5	11/30/2010	<5	<5	<5	16	23	26	15	10	19	<5	16	<5	12	<5	5.7	20	30
C2	C2-0.5 <60	0.5	11/30/2010	310	<230	410	3500	5600	7100	3800	2400	4400	1100	4000	<230	3300	<230	1500	4700	7600
C2	C2-1.0 <60	1	11/30/2010	12	<4.9	46	230	250	360	130	130	260	48	330	8.1	130	<4.9	170	320	350
C2	C2-1.5 <60	1.5	11/30/2010	<5	<5	8.1	34	38	49	22	22	42	6.8	51	<5	20	<5	27	48	53
C2	C2-3.0 <60	3	11/30/2010	5	<5	6.7	64	100	120	58	40	81	16	62	<5	46	<5	21	83	130
C3	C3-0.5 <60	0.5	11/30/2010	800	<490	<490	6500	12000	9900	8900	8600	8600	2400	6600	<490	8000	<490	2200	8300	16000
C3	C3-1.0 <60	1	11/30/2010	11	<5	16	140	210	260	150	110	180	38	180	<5	130	<5	59	190	290
C3	C3-1.5 <60	1.5	11/30/2010	<4.9	<4.9	<4.9	17	27	29	19	14	22	5.2	18	<4.9	17	<4.9	6.4	23	37
C4	C4-0.5 <60	0.5	11/30/2010	1200	<500	1000	13000	22000	22000	14000	7700	16000	3800	11000	<500	11000	<500	3800	14000	29000
C4	C4-1.0 <60	1	11/30/2010	95	<50	77	930	1800	1500	1200	1100	1200	400	880	<50	1200	<50	310	1100	2400
C4	C4-1.5 <60	1.5	11/30/2010	67	<50	110	1200	2000	2200	1400	1300	1700	230	1500	<50	1400	<50	400	1600	2700
C4	C4-3.0 <60	3	11/30/2010	<4.9	<4.9	<4.9	31	51	63	35	21	44	9.9	34	<4.9	30	<4.9	12	43	69

TABLE 6

SOIL ANALYTICAL DATA: PAHs¹
Pacific Rod and Gun Club
San Francisco, California

Results reported in micrograms per kilogram (µg/kg)

Sample Location	Sample ID	Depth (ft bgs)	Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) Anthracene	Benzo(a) Pyrene	Benzo(b) Fluoranthene	Benzo(g,h,i) Perylene	Benzo(k) Fluoranthene	Chrysene	Dibenz(a,h) Anthracene	Fluoranthene	Fluorene	Indeno-(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	BaPe ²	
Benzo(a)Pyrene Potency Equivalent Factor (PEF)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
C5	C5-0.5 <60	0.5	11/30/2010	18000	<4000	18000	180000	320000	220000	190000	230000	230000	61000	180000	4700	180000	<4000	72000	230000	NA	NA
C5	C5-1.0 <60	1	11/30/2010	2200	<500	2200	22000	39000	42000	27000	17000	26000	7600	22000	<500	24000	<500	7300	24000	24000	52000
C5	C5-1.5 <60	1.5	11/30/2010	3400	<500	3400	34000	67000	52000	40000	45000	43000	13000	37000	960	37000	590	13000	42000	89000	89000
C5	C5-3.0 <60	3	11/30/2010	9.2	<5	9.2	99	180	200	130	85	130	37	100	<5	110	<5	32	130	240	240
C6	C6-0.5 <60	0.5	11/30/2010	5800	<1000	5800	62000	120000	89000	77000	81000	82000	26000	65000	1400	75000	<1000	23000	75000	160000	160000
C6	C6-1.0 <60	1	11/30/2010	1700	<200	1700	19000	30000	23000	24000	25000	24000	7800	21000	420	22000	280	7000	23000	42000	42000
C6	C6-1.5 <60	1.5	11/30/2010	18	<5	18	190	350	280	230	250	250	72	210	<5	220	<5	75	240	470	470
C6	C6-3.0 <60	3	11/30/2010	11	<5	11	120	200	250	130	79	150	37	130	<5	110	<5	40	150	270	270
C7	C7-0.5 <60	0.5	11/30/2010	7200	<1000	7200	73000	140000	100000	91000	100000	97000	31000	72000	2000	84000	1100	27000	90000	190000	190000
C7	C7-1.0 <60	1	11/30/2010	940	<250	940	11000	20000	17000	13000	14000	13000	4300	12000	<250	13000	<250	3800	13000	27000	27000
C7	C7-1.5 <60	1.5	11/30/2010	9500	<990	9500	69000	93000	140000	43000	43000	80000	15000	100000	1700	42000	1100	35000	99000	130000	130000
C7	C7-3.0 <60	3	11/30/2010	11	<5	11	92	120	160	64	65	100	19	120	<5	57	<5	44	120	160	160
C8	C8-0.5 <60	0.5	11/30/2010	97	<50	97	920	1400	1200	900	1100	1200	180	1000	<50	860	<50	410	1200	2000	2000
C8	C8-1.0 <60	1	11/30/2010	1200	<250	1200	9400	14000	18000	5800	5700	11000	2000	12000	<250	6000	<250	4500	12000	19000	19000
C8	C8-1.5 <60	1.5	11/30/2010	1500	<250	1500	9700	12000	16000	5000	6800	11000	1700	14000	<250	5000	<250	5600	13000	16000	16000
C8	C8-3.0 <60	3	11/30/2010	29	<4.9	29	180	230	330	110	100	200	35	260	<4.9	110	<4.9	110	260	320	320
C9	C9-0.5 <60	0.5	11/29/2010	5500	<3000	5500	75000	130000	85000	83000	79000	100000	22000	62000	<3000	68000	<3000	27000	94000	170000	170000
C9	C9-1.0 <60	1	11/29/2010	<5000	<5000	<5000	40000	62000	45000	40000	48000	52000	6900	46000	<5000	38000	<5000	17000	52000	82000	82000
C9	C9-1.5 <60	1.5	11/29/2010	3300	<990	3300	24000	33000	31000	21000	26000	29000	4800	32000	<990	21000	<990	12000	32000	45000	45000
C9	C9-3.0 <60	3	11/29/2010	15	<5	15	160	250	290	160	100	200	47	180	<5	130	<5	66	220	340	340
C10	C10-0.5 <60	0.5	11/29/2010	7600	<7300	7600	130000	220000	160000	110000	42000	190000	31000	68000	<7300	61000	<7300	41000	160000	270000	270000
C10	C10-1.0 <60	1	11/29/2010	23000	<5000	23000	260000	390000	520000	240000	170000	300000	68000	310000	<5000	220000	<5000	83000	310000	530000	530000
C10	C10-1.5 <60	1.5	11/29/2010	1700	<250	1700	13000	15000	14000	8900	12000	14000	3200	19000	<250	8100	<250	6600	18000	21000	21000
C10	C10-3.0 <60	3	11/29/2010	<5	<5	<5	13	15	19	9.4	8.2	14	<5	13	<5	8.8	<5	<5	15	21	21
C11	C11-0.5 <60	0.5	11/29/2010	670	<600	670	10000	17000	15000	12000	11000	13000	4500	9900	<600	11000	<600	2700	12000	23000	23000
C11	C11-1.0 <60	1	11/29/2010	300	<100	300	3600	4700	4200	3200	3800	4100	1000	4600	<100	2800	<100	1200	4700	7000	7000
C11	C11-1.5 <60	1.5	11/29/2010	6.3	<5	6.3	120	210	220	190	150	150	60	110	<5	160	<5	26	120	300	300
C11	C11-3.0 <60	3	11/29/2010	<4.9	<4.9	<4.9	11	17	22	14	7.5	12	<4.9	11	<4.9	13	<4.9	<4.9	11	23	23
C13	C13-0.5 <60	0.5	11/29/2010	<5000	<5000	<5000	37000	58000	52000	38000	20000	45000	10000	27000	<5000	27000	<5000	10000	38000	75000	75000
C13	C13-1.0 <60	1	11/29/2010	2500	<1000	2500	27000	46000	47000	32000	18000	31000	9400	25000	<1000	26000	<1000	8000	29000	61000	61000
C13	C13-1.5 <60	1.5	11/29/2010	150	<99	150	2000	3500	4300	2500	1600	2300	730	2000	<99	2200	<99	530	2000	4800	4800
C13	C13-3.0 <60	3	11/29/2010	<5	<5	<5	12	16	16	10	5.4	14	<5	9.5	<5	7.6	<5	<5	13	21	21
C14	C14-0.5 <60	0.5	11/29/2010	470	<250	470	5100	9100	9700	6100	3800	6100	1600	4800	<250	5000	<250	1600	5400	12000	12000
C14	C14-1.0 <60	1	11/29/2010	2300	<490	2300	22000	39000	32000	25000	14000	23000	6600	18000	560	18000	<490	7000	26000	50000	50000
C14	C14-1.5 <60	1.5	11/29/2010	1600	<490	1600	17000	32000	24000	19000	9300	21000	5200	11000	<490	13000	<490	5000	21000	40000	40000
C14	C14-2.0 <60	2	11/29/2010	14000	<4900	14000	150000	260000	200000	150000	76000	180000	38000	95000	<4900	95000	<4900	45000	180000	330000	330000
D2	D2-0.5 <60	0.5	11/30/2010	61	<25	61	790	1100	1300	540	460	920	170	840	<25	480	<25	220	960	1500	1500
D2	D2-1.0 <60	1	11/30/2010	10	<4.9	10	110	140	220	87	76	150	27	140	<4.9	80	<4.9	44	140	200	200
D2	D2-1.5 <60	1.5	11/30/2010	<100	<100	<100	390	370	520	190	190	410	<100	620	<100	160	<100	280	610	520	520
D2	D2-3.0 <60	3	11/30/2010	41	<9.8	41	410	610	870	310	270	510	95	520	<9.8	280	<9.8	160	550	830	830
D4	D4-0.5 <60	0.5	11/30/2010	<9900	<9900	<9900	120000	210000	150000	150000	140000	160000	43000	110000	<9900	130000	<9900	37000	140000	280000	280000
D4	D4-1.0 <60	1	11/30/2010	8000	<4900	8000	97000	180000	120000	110000	130000	120000	32000	92000	<4900	97000	<4900	31000	120000	240000	240000
D4	D4-1.5 <60	1.5	11/30/2010	7000	<2500	7000	72000	120000	85000	84000	49000	85000	25000	71000	<2500	74000	<2500	23000	79000	160000	160000
D4	D4-3.0 <60	3	11/30/2010	2200	<250	2200	25000	40000	54000	32000	16000	30000	8000	31000	470	28000	270	8900	32000	55000	55000
D5	D5-0.5 <60	0.5	11/30/2010	26000	<25000	26000	280000	510000	350000	330000	340000	360000	97000	270000	<25000	310000	<25000	100000	360000	670000	670000
D5	D5-1.0 <60	1	11/30/2010	56000	<25000	56000	610000	200000	770000	700000	890000	760000	220000	590000	<25000	670000	<25000	210000	740000	1600000	1600000
D5	D5-1.5 <60	1.5	11/30/2010	120000	<50000	120000	1100000	2000000	1300000	1200000	1600000	1400000	370000	1200000	<50000	1100000	<50000	470000	1400000	2600000	2600000
D5	D5-3.0 <60	3	11/30/2010	100	<25	100	1200	2000	2400	1200	780	1400	410	1100	25	1200	<25	340	1300	2700	2700
D6	D6-0.5 <60	0.5	11/30/2010	31000	<25000	31000	340000	540000	550000	390000	200000	410000	100000	320000	<25000	300000	<25000	100000	360000	720000	720000
D6	D6-1.0 <60	1	11/30/2010	50000	<50000	50000	480000	740000	820000	340000	340000	580000	100000	520000	<50000	320000	<50000	170000	550000	980000	980000
D6	D6-1.5 <60	1.5	11/30/2010	13000	<10000	13000	130000	200000	240000	93000	90000	150000	27000	140000	<10000	91000	<10000	44000	160000	270000	270000
D6	D6-3.0 <60	3	11/30/2010	14	<5	14	150	220	310	140	91	190	43	190	<5	120	<5	51	190	300	300

TABLE 6

SOIL ANALYTICAL DATA: PAHs¹

Pacific Rod and Gun Club
San Francisco, California

Results reported in micrograms per kilogram (µg/kg)

Sample Location	Sample ID	Depth (ft bgs)	Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)Anthracene	Benzo(a)Pyrene	Benzo(b)Fluoranthene	Benzo(g,h,i)Perylene	Benzo(k)Fluoranthene	Chrysene	Dibenz(a,h)Anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	BaPe ²
	Benzo(a)Pyrene Potency Equivalent Factor (PEF)			0.1	NA	NA	0.1	1	0.1	NA	0.1	0.01	0.34	NA	NA	0.1	NA	NA	NA	NA
D8	D8-0.5 <60	0.5	11/30/2010	<25000	<25000	<25000	250000	400000	310000	260000	250000	310000	74000	250000	<25000	220000	<25000	83000	310000	530000
D8	D8-1.0 <60	1	11/30/2010	<5000	<5000	<5000	57000	91000	68000	60000	62000	71000	18000	58000	<5000	52000	<5000	19000	72000	120000
D8	D8-1.5 <60	1.5	11/30/2010	<250	<250	660	5100	7200	6400	4600	5500	6200	1400	6500	<250	4200	<250	2400	6900	10000
D8	D8-3.0 <60	3	11/30/2010	<5	<5	<5	38	56	65	31	25	45	9	40	<5	26	<5	13	47	75
D9	D9-0.5 <60	0.5	11/30/2010	17000	<10000	14000	160000	280000	210000	180000	180000	210000	30000	160000	<10000	160000	<10000	54000	210000	360000
D9	D9-1.0 <60	1	11/30/2010	46000	<37000	40000	460000	750000	520000	480000	540000	570000	140000	460000	<37000	440000	<37000	140000	570000	1000000
D9	D9-1.5 <60	1.5	11/30/2010	2800	<990	5900	43000	64000	55000	41000	47000	52000	8500	55000	1200	38000	<990	22000	57000	86000
D9	D9-3.0 <60	3	11/30/2010	8.3	<5	13	120	170	220	120	68	140	27	140	<5	98	<5	48	160	230
Background Samples																				
BS-1	BS-1-0.5 <60	0.5	12/2/2010	<10	<10	<10	11	17	20	16	10	18	<10	13	<10	12	<10	<10	17	24
BS-1	BS-1-1.0 <60	1	12/2/2010	<29	<29	<29	<29	34	35	30	37	37	<29	<29	<29	<29	<29	<29	30	49
BS-2	BS-2-0.5 <60	0.5	12/2/2010	<4.9	<4.9	<4.9	6.2	9.1	9.8	7.6	7.0	8.8	<4.9	7.5	<4.9	5.8	<4.9	<4.9	9.5	13
BS-2	BS-2-1.0 <60	1	12/2/2010	<5	<5	<5	8.4	12	12	10	10	12	<5	10	<5	7.9	<5	5	13	17
BS-3	BS-3-0.5 <60	0.5	12/2/2010	<10	<10	<10	16	21	21	25	15	22	<10	21	<10	15	<10	22	29	30
BS-3	BS-3-1.0 <60	1	12/2/2010	<9.9	<9.9	<9.9	23	33	29	30	26	31	<9.9	35	<9.9	22	<9.9	20	43	45
BS-4	BS-4-0.5 <60	0.5	12/2/2010	<130	<130	<130	<130	150	140	<130	<130	150	<130	<130	<130	<130	<130	<130	130	210
BS-4	BS-4-1.0 <60	1	12/2/2010	<25	<25	<25	77	130	110	91	100	110	<25	91	<25	73	<25	38	120	170
BS-5	BS-5-0.5 <60	0.5	11/30/2010	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	<99	ND
BS-5	BS-5-1.0 <60	1	11/30/2010	<50	<50	<50	81	130	130	94	150	110	<50	78	<50	75	<50	<50	98	180
Summary Statistics for Pacific Rod and Gun Club Samples																				
			Count	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212
			Number of Detects	106	0	119	179	185	186	180	179	184	153	176	18	179	8	157	184	187
			Number of Non-Detects	106	212	93	33	27	26	32	33	28	59	36	194	33	204	55	28	25
			Minimum Detection	5	0	5.5	5	5.2	5	5	5.2	5	5	5.1	6.1	5	5.3	5	5.2	5
			Maximum Detection	170,000	0	120,000	1,100,000	2,000,000	1,300,000	1,200,000	1,600,000	1,400,000	370,000	1,200,000	4,700	1,100,000	1,100,000	470,000	1,400,000	2,600,000
			Minimum Reporting Limit	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	--
			Maximum Reporting Limit	50,000	50,000	25,000	25	25	25	25	25	25	250	25	50,000	25	50,000	250	25	--
			Detection Frequency	50%	0%	56%	84%	87%	88%	85%	84%	87%	72%	83%	8%	84%	4%	74%	87%	88%
Screening Criteria																				
			Maximum Background Concentration	ND	ND	ND	81	150	140	94.0	150	150	ND	91	ND	75	ND	38	130	210
			Minimum Background Concentration	ND	ND	ND	6.2	9.1	9.8	7.6	7.0	8.8	ND	7.5	ND	5.8	ND	5.0	9.5	13
			Residential Direct Exposure ESL ³	500,000	340,000	3,100,000	380	38	380	340,000	380	62,000	62	460,000	390,000	620	1,300	11,000	690,000	38
			Commercial/Industrial Direct Exposure ESL ³	3,100,000	3,300,000	26,000,000	1,300	130	1,300	3,300,000	1,300	210,000	210	4,400,000	2,800,000	2,100	2,800	3,300,000	6,600,000	130

Notes

- Soil samples collected by AMEC Geomatrix, Inc., and analyzed for polycyclic aromatic hydrocarbons (PAHs) using U.S. EPA Method 8270C SIM.
- The benzo(a)pyrene equivalent (BaPe) is calculated as the summation of the potency equivalency factors (PEFs) multiplied by the concentrations of the carcinogenic PAHs. One-half the reporting limit is used when other analytes are detected.
- Environmental Screening Level (ESL), Regional Water Quality Control Board, San Francisco Bay Region, 2008, Update to Environmental Screening Levels for Sites with Impacted Soil and Groundwater, May. (Target hazard quotient for noncarcinogenic endpoints equals 0.2.)

Abbreviations

- Bolded** = values detected above the analytical reporting limit
- = not applicable
- < = Constituent was not detected above indicated reporting limit.
- ft bgs = feet below ground surface
- J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- ND = not detected
- UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.