

## Detterman, Mark, Env. Health

---

**From:** Hoofard, Keith [Keith.Hoofard@tetrattech.com]  
**Sent:** Friday, October 30, 2015 11:42 AM  
**To:** Rick Henderson; Costello, Timothy; Detterman, Mark, Env. Health  
**Cc:** John Biale (JBiale@swinerton.com); sprice@swinerton.com; Robert Axton  
**Subject:** RE: 5100 Broadway, Oakland - On-Site Utility Trench Soil for Backfilling (RO3172)  
**Attachments:** NJ Concrete Characterizatoin for Recycling 2010.pdf

ALL,

Pile 8B soil (250CY) can be used at present. Other on-site soil can be used, if it's tested and passes, and preferably not from one of our Exclusion Zone areas. Need another roughly 250 CY to complete the backfill after using PILE-8B.

If recycled concrete (or other recycled) is used, there is testing required by the County. The analyses are the same as what we've done before, but the red-tape on the back end for Self-Certification is pretty onerous (signed/notarized statements, property owner involvement, etc.) for the roughly 250CY balance needed to complete the backfill.

The County provided a NJ Environmental Protection Agency document that describes the profiling required for using recycled material (attached).

Keith

**Keith Hoofard | Senior Geologist**

Direct: 916.853.4523 | Main: 916.853.1800 | Fax: 916.853.1860 | Cell: 916.709-4732  
[keith.hoofard@tetrattech.com](mailto:keith.hoofard@tetrattech.com)

Tetra Tech, Inc.  
2969 Prospect Park Drive, Suite 100 | Rancho Cordova, CA 95670 | [www.tetrattechgeo.com](http://www.tetrattechgeo.com)

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

---

**From:** Rick Henderson [mailto:rhenderson@terramarcenters.com]  
**Sent:** Friday, October 30, 2015 11:31 AM  
**To:** Costello, Timothy <Timothy.Costello@tetrattech.com>; Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>; Hoofard, Keith <Keith.Hoofard@tetrattech.com>  
**Cc:** John Biale (JBiale@swinerton.com) <JBiale@swinerton.com>; sprice@swinerton.com; Robert Axton <RAxton@swinerton.com>  
**Subject:** RE: 5100 Broadway, Oakland - On-Site Utility Trench Soil for Backfilling (RO3172)

Bottom line.....Swinerton can backfill using both the trench spoils and the crushed material stockpiled on site?

---

**From:** Costello, Timothy [mailto:Timothy.Costello@tetrattech.com]  
**Sent:** Friday, October 30, 2015 10:35 AM  
**To:** Detterman, Mark, Env. Health; Hoofard, Keith  
**Cc:** Rick Henderson  
**Subject:** RE: 5100 Broadway, Oakland - On-Site Utility Trench Soil for Backfilling (RO3172)

Thank you Mark.  
Tim.

**Tim Costello** | Senior Scientist, Associate

Direct: 916.853.4584 | Main: 916.853.1800 | Fax: 916.853.1860

Cell: 916.704-4715 [tim.costello@tetrattech.com](mailto:tim.costello@tetrattech.com)

Tetra Tech, Inc. (formerly Tetra Tech GEO)

2969 Prospect Park Drive, Suite 100 | Rancho Cordova, CA 95670

[www.tetrattechgeo.com](http://www.tetrattechgeo.com) [www.tetrattech.com](http://www.tetrattech.com)

---

**From:** Detterman, Mark, Env. Health [<mailto:Mark.Detterman@acgov.org>]

**Sent:** Friday, October 30, 2015 10:32 AM

**To:** Hoofard, Keith <[Keith.Hoofard@tetrattech.com](mailto:Keith.Hoofard@tetrattech.com)>; Costello, Timothy <[Timothy.Costello@tetrattech.com](mailto:Timothy.Costello@tetrattech.com)>

**Cc:** Rick Henderson <[rhenderson@terramarceters.com](mailto:rhenderson@terramarceters.com)>

**Subject:** RE: 5100 Broadway, Oakland - On-Site Utility Trench Soil for Backfilling (RO3172)

Hi Keith, Tim,

Presuming your summary is correct, your logic appears reasonable from several view points. The relative mobility of Dieldrin provides a good argument for reuse. Additionally, while the groundwater is relatively unlikely to be used, it is in an area designated as potentially useable by the SF Bay Basin Plan, and ACEH needs to observe that designation. However, burial beneath a slab and building, or pavement, and imported baserock will provide significant protection from leaching to potential groundwater. You will need to support the reuse of the material in the final report with these concepts.

Please note that if Swinerton Builders is utilizing recycled baserock, please be aware that Terramar must ensure the observance of Technical Comment 1d from our October 19, 2015 directive letter (testing to ensure clean recycled fill material).

Thanks,

*Mark Detterman*

*Senior Hazardous Materials Specialist, PG, CEG*

*Alameda County Environmental Health*

*1131 Harbor Bay Parkway*

*Alameda, CA 94502*

*Direct: 510.567.6876*

*Fax: 510.337.9335*

*Email: [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org)*

*PDF copies of case files can be downloaded at:*

*<http://www.acgov.org/aceh/lop/ust.htm>*

---

**From:** Hoofard, Keith [<mailto:Keith.Hoofard@tetrattech.com>]

**Sent:** Friday, October 30, 2015 9:43 AM

**To:** Detterman, Mark, Env. Health

**Cc:** Costello, Timothy

**Subject:** 5100 Broadway, Oakland - On-Site Utility Trench Soil for Backfilling (RO3172)

Mark,

Swinerton Builders is in charge of the backfill after we complete our dig, as they need to meet their specific compaction requirements for the new Building K construction. We have some soil generated on-site - excess soil from a utility trench that was recently completed during construction – that we've tested (PILE-8B). The utility trench was located along the southeast overall site boundary, by the current pond (distant from the onsite buildings).

I collected a sample (1 discrete for this 250CY pile, per DTSC frequency) and analyzed for the following list, which meets DTSC requirements:

- Volatile Organic Compounds (VOCs), full suite, EPA Method 8260B
- Semi-Volatile Organic Compounds (SVOCs), EPA Method 8270C
- CAM 17 Metals, EPA Method 6010
- Mercury, EPA Method 7471A
- Gasoline-Range Petroleum Hydrocarbons (TPH-g), EPA Method 8260B/GC-MS
- Diesel Fuel- and Motor Oil-Range Petroleum Hydrocarbons (TPH-d,mo) EPA Method 8015M with silica gel cleanup
- Pesticides, EPA Method 8081A
- PCBs, EPA Method 8082

The positive detections are shown in the imbedded table below. All good, except Dieldrin (4 µg/Kg) exceeds the Commercial ESL of 2.3 µg/kg (for GW protection), but it's well below the 130 µg/Kg commercial Human Health ESL for Dieldrin. The shallow (< 3m) and deep (> 3m) commercial soil ESL values for Dieldrin are the same.

Since GW is not a potential drinking water source (in this rock bathtub of a site), and Dieldrin is fairly immobile in soil, we'd like to use the 250 CY soil (PILE-8B) for the majority of the backfill in the larger rectangular excavation area, which is under the future Building K pad. Swinerton will top off the excavation when they build-up the Building K pad with import AB (as has been done with the other new buildings currently underway).

PDF View    Advanced Edit    367709-1 UDS Level 2 Report Final Report - PDF Converter Er

File   Scan   Edit   View   Document   Comments   Forms   Tools   Favorites   Window   Connections   Help

Client Sample ID: **PILE-8B**

Analyte	Result	Qualifier
Diesel Range Organics [C10-C28]	41	
Motor Oil Range Organics [C24-C36]	180	
Dieldrin	4.0	
4,4'-DDD	5.2	
alpha-Chlordane	2.8	p
gamma-Chlordane	4.6	
Arsenic	5.5	
Barium	190	
Beryllium	0.66	
Chromium	23	
Cobalt	10	
Copper	23	
Lead	23	
Nickel	34	
Vanadium	26	
Zinc	67	
Mercury	0.54	

8.50 x 11.00 in    7 of 69

**Keith Hoofard** | Senior Geologist

Direct: 916.853.4523 | Main: 916.853.1800 | Fax: 916.853.1860 | Cell: 916.709-4732

[keith.hoofard@tetratech.com](mailto:keith.hoofard@tetratech.com)

Tetra Tech, Inc.

2969 Prospect Park Drive, Suite 100 | Rancho Cordova, CA 95670 | [www.tetratechgeo.com](http://www.tetratechgeo.com)

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.