## Nowell, Keith, Env. Health

From:	Yoo, James
Sent:	Monday, April 20, 2015 1:00 PM
То:	Nowell, Keith, Env. Health
Cc:	David Beretta; Walter Sprague (WSprague@pcandf.com); Ed.C.Ralston@p66.com;
	'Dennis.Dettloff@anteagroup.com'; 'paulk@gkfremontlaw.com'; Roe, Dilan, Env. Health;
	Steve Moriarty; Beretta Facilities
Subject:	RE: Fuel Leak Case No. RO0000219 and GeoTracker Global ID T0600101476, UNOCAL #
	5043, 449 Hegenberger Road, Oakland

Hi Keith,

This is the County monitoring well destruction and borehole destruction requirements below.

Monitoring Wells on private property (Two inch diameter wells or larger):

Remove the Christy box or similar structure. Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

Wells in the City Right-Of-Way (Two inch diameter wells or larger):

Remove the Christy box or similar structure. Destroy well(s) by overdrilling the upper 5ft. below ground surface (bgs) and then tremie grouting with neat cement. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil. After the seal has set, backfill the remaining hole by approved encroachment permit concrete material and asphalt material by Caltrans Spec or County/City Codes.

Borehole backfill requirements:

Backfill borehole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with bentonite compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

Please feel free to contact me if you have any questions.

James

JAMES YOO ENVIRONMENTAL COMPLIANCE SPECIALIST ALAMEDA COUNTY PUBLIC WORKS AGENCY WATER RESOURCES SECTION 399 Elmhurst Street Hayward, CA 94544 Ph: 510-670-6633 Fax: 510-782-1939 From: Nowell, Keith, Env. Health
Sent: Friday, April 17, 2015 9:26 AM
To: Yoo, James
Cc: David Beretta; Walter Sprague (WSprague@pcandf.com); Ed.C.Ralston@p66.com;
'Dennis.Dettloff@anteagroup.com'; 'paulk@gkfremontlaw.com'; Roe, Dilan, Env. Health; Steve Moriarty; Beretta Facilities
Subject: Fuel Leak Case No. RO0000219 and GeoTracker Global ID T0600101476, UNOCAL #5043, 449 Hegenberger Road, Oakland

Hi James,

It has come to the attention of Alameda County Environmental Health (ACEH) that a proposed method of backfilling groundwater monitoring wells at the subject fuel leak site includes the placement of soil as impervious seal material into the over-drilled borehole. This method is inconsistent with ACEH's understanding of Chapter II, Section 23 of the Department of Water Resources (DWR) California Well Standards Bulletin 74-90 which presents the requirements for destroying wells. It is our further understanding that in order to comply with the DWR well destruction standards, Alameda County Public Works Agency (ACPWA), the well permitting agency for this site, recognizes two methods of well destruction:

- 1. Over-drilling and backfill with neat cement, sand-cement grout, and concrete.
- 2. Pressure grouting the well with neat cement or grout.

Additionally, we understand a hole shall be excavated around the well casing to a depth of 5 feet below the ground surface and the well casing removed to the bottom of the excavation with the sealing material used for the upper portion of the well shall be allowed to spill over into the excavation to form a cap. After the well has been properly filled, including sufficient time for sealing material in the excavation to set, the excavation shall be filled with native soil.

Can you please provide clarification to ACEH, the Responsible Parties, and consultants listed in the cc above on the required procedure.

Thank you, Keith Nowell

Keith Nowell PG, CHG Hazardous Materials Specialist Alameda County Environmental Health 1131 Harbor Bay Parkway Alameda , CA 94502-6540 phone: 510 / 567 - 6764 fax: 510 / 337 - 9335 email: keith.nowell@acgov.org

PDF copies of case files can be reviewed/downloaded at:

http://www.acgov.org/aceh/lop/ust.htm