From:	Roe, Dilan, Env. Health
To:	Soo, Kit, Env. Health
Subject:	FW: RO 357 - Snow Cleaners - 2678 Coolidge Ave, Oakland - Sampling Schedule
Date:	Wednesday, July 27, 2016 3:22:05 PM

From: PDKing0000@aol.com [mailto:PDKing0000@aol.com]
Sent: Monday, April 25, 2016 6:54 PM
To: Roe, Dilan, Env. Health < Dilan.Roe@acgov.org>
Subject: RO 357 - Snow Cleaners - 2678 Coolidge Ave, Oakland - Sampling Schedule

Hi Dilan,

We are presently scheduled to collect crawl space air samples at locations identified in the most recent ACEH correspondence of 1/20/16 for completion and submittal of a report by 5/10/16 in accordance with the 1/20/16 ACEH letter.

We restarted the groundwater extraction system at the site on 2/1/16 and have been extracting groundwater on a continuous basis since April 11, 2016.

We restarted the soil vapor extraction system at the site on 4/6/16 and the SVE system has been operating continuously since 4/11/16.

Groundwater and soil vapor are presently extracted from one dual phase well designated as DP1.

Monitoring of vacuum at wells that are located in the vicinity of the one extracting well indicates that although vacuum is not uniformly distributed in the vicinity of the extracting location, a very good vacuum (greater than 3 inches of water column) is consistently measured at a distance of approximately 20 feet from the extracting well, and that similarly a vacuum of approximately 1 inch of water column is consistently measured at a distance of at least approximately 42 feet from the extracting location.

The DTSC identifies a vacuum of 0.014 inches of water column (4 Pascals) as the conservative California default value for building depressurization (see DTSC VIG Appendix D Indoor-Outdoor Pressure Differential section), which indicates evidence of adequate vacuum influence for vapor intrusion concerns.

Please let me know if you have any questions or need any additional information.

Thank you!

Paul

Paul H. King Professional Geologist

P&D Environmental, Inc. 55 Santa Clara Avenue, Suite 240 Oakland, CA 94610

From:	Roe, Dilan, Env. Health
То:	Soo, Kit, Env. Health
Subject:	FW: FW: Snow Cleaners, Oakland, Case RO0000357, USTCF Claim 16147 Request for
Date:	Wednesday, July 27, 2016 3:23:13 PM
Attachments:	DIR L 2016-01-20.pdf
	0298.L70.pdf
	0298.R19.pdf

From: PDKing0000@aol.com [mailto:PDKing0000@aol.com]
Sent: Wednesday, May 18, 2016 7:45 AM
To: Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Subject: Re: FW: Snow Cleaners, Oakland, Case RO0000357, USTCF Claim 16147 Request for...

Hi Dilan,

From 2/3/16 through 4/31/16 we removed about 8 liters of floating product Stoddard solvent from well DP3.

On 5/3/16 we removed 6.5 liters of floating product Stoddard solvent from well DP3, with a total of about 18 liters of floating product Stoddard solvent removed from well DP3 to date in May 2016.

This information will be provided in the upcoming Remediation Progress Report that is due 7/30/16 (see attached 1/20/16 agency directive).

\*\*\*\*\*

I have attached a pdf copy of the 5/9/16 crawl space air report for the site that I uploaded 5/12/16. The crawl space air risk and hazard are summarized in Table 2C.

Risk ranges from 12.4 to 14 per million, with 99.97% of the risk from petroleum (benzene and naphthalene, see Table 2A) and 98.5% of the hazard from petroleum (see Table 2B), with almost all of the hazard being from TPH Stoddard solvent. Hazard for all samples ranged from 14 to 37, with one property where <u>no</u> HVOCs were detected having a hazard of 37 to 43.

If we did not have HVOCs at this site we would be cleaning it up because of petroleum. We have a petroleum problem that is tainted by HVOCs.

During recent air testing associated with re-starting and initial operation of the SVE system in 2016 I have not observed the elevated HVOC and methane concentrations from well DP1 that were observed in 2014.

\*\*\*\*\*

You will find attached a pdf copy of the April 16, 2012 P&D Environmental, Inc. Petroleum and HVOC Mass Evaluation letter (document 0298.L70.pdf) that was provided to Dave Charter at the UST Fund showing that 99.56 % of the mass associated with environmental investigation and cleanup at the subject site is TPH.

The report referenced in the April 16, 2012 letter is P&D's 8/19/2009 Subsurface Investigation Report (document 0298.R6).

Based on this information, the Fund determined that the work is eligible for Fund reimbursement and paid Reimbursement Requests # 11, 12, 13 and 14.

\*\*\*\*\*

What is your availability to discuss?

Thank you!

Paul

Paul H. King Professional Geologist

P&D Environmental, Inc. 55 Santa Clara Avenue, Suite 240 Oakland, CA 94610

(510) 658-6916 telephone (510) 834-0152 facsimile (510) 387-6834 cellular Paul.King@pdenviro.com

In a message dated 5/17/2016 18:54:33 Pacific Daylight Time, Dilan.Roe@acgov.org writes:

FYI – the state wants to close this case under the LUFT program – it seems appropriate as the COCs are now chlorinated. Lets discuss.

From: Sheehan, Caryl@Waterboards [mailto:Caryl.Sheehan@Waterboards.ca.gov]
Sent: Wednesday, May 11, 2016 4:07 PM
To: Roe, Dilan, Env. Health <<u>Dilan.Roe@acgov.org</u>>
Cc: Cullen, Pat@Waterboards <<u>Pat.Cullen@waterboards.ca.gov</u>>; Young,
James@Waterboards <<u>James.Young@waterboards.ca.gov</u>>; Hoffmore,
Roger@Waterboards <<u>Roger.Hoffmore@waterboards.ca.gov</u>>; Hoffmore,
Subject: Snow Cleaners, Oakland, Case RO0000357, USTCF Claim 16147 Request for Teleconference

The attached Review Summary Report (RSR) has been sent to the caseworker, and the caseworker's supervisor (as listed on GeoTracker), for review and comment as to whether we have captured your concerns regarding the case closure. As described in the Conflict Resolution Chart, once you've had a chance to review the RSR, if you would like to discuss this case, please reply to Pat Cullen and/or Caryl Sheehan by **5/25/2016**, by email with three dates and times to schedule a 30 minute teleconference to be held in the future. The teleconference does not have to be held by that date; we only request that you reply with your interest in a call and proposed future dates.

Please note that the Response to Objections to Closure section of the RSR is provided on a separate page at the back of the pdf. The Objections to Comments are obtained from the most recent communications in GeoTracker (Closure Denial, LTCP Checklist, Path to Closure, or the latest directive).

If the caseworker and/or the caseworker's supervisor has different or additional comments to those presented, we request a list of your most current concerns five (5) working days before the scheduled call. We will then address those new comments and provide you a revised Response to Objections to Closure two (2) working days before the call.

If we have not received a request from your agency to discuss the case by **5/25/2016**, the State Water Board staff will assume that a teleconference is not warranted because your agency has no objections to the proposed closure. If there is no call, the State Water Board staff will initiate the State Water Board closure process for the Site, upload the draft Order with the RSR, perform public notice and upload the final Order when all tasks have been completed.

In an effort to go paperless the State Board will not send hard copies of the RSR.

Thank you,

## Caryl F. Sheehan, PG, PMP

Engineering Geologist SWRCB Clean Up Fund DFA Technical Review Unit 916.341.5742 Caryl.Sheehan@Waterboards.ca.gov

## IMPORTANT!!!

**Sign up to get email alerts:** The State Water Board communicates by email to subscribers of electronic mailing lists. We encourage you to subscribe to UST lists of most interest found at:

http://www.waterboards.ca.gov/resources/email\_subscriptions/ust\_subscribe.shtml. To receive important UST Cleanup Fund, be sure to select the "Cleanup Fund" list .

Find Fund Information: For Fund information, go to:

www.waterboards.ca.gov/water\_issues/programs/ustcf. Information includes reimbursement requests, budgets, claim applications, Emergency Abandoned or Recalcitrant Program, Orphan Site Cleanup Fund, and SB 445 implementation that includes Expedited Cleanup Account Program; and Site Cleanup Subaccount Program (SCAP). If you cannot find the information you are seeking, please email your detailed question to

USTcleanupfund@waterboards.ca.gov.

**Single Tank Owners**: Deadline to remove single wall tanks is December 31, 2025. RUST Program funding is available for small businesses to removal, replacement, and upgrade of petroleum USTs. Apply **prior** to UST removal. For more information, go to:

http://www.waterboards.ca.gov/water\_issues/programs/ustcf/rust.shtml. If petroleum releases are found, apply early to the UST Cleanup Fund for potential reimbursement of eligible corrective action costs. For more information, go to: http://www.waterboards.ca.gov/water\_issues/programs/ustcf/#. DO NOT DELAY.

**Groundwater Funding Programs:** New laws created additional funding programs. For new information regarding SB 445 SCAP and Proposition 1, go to: <u>http://www.waterboards.ca.gov/water\_issues/programs/grants\_loans/#</u>.

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From:	Roe, Dilan, Env. Health
To:	Soo, Kit, Env. Health
Subject:	FW: RO 357 - Snow Cleaners - Free Product Recovery Values are in Question
Date:	Wednesday, July 27, 2016 3:23:50 PM

From: PDKing0000@aol.com [mailto:PDKing0000@aol.com]
Sent: Thursday, May 26, 2016 8:41 AM
To: Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Subject: RO 357 - Snow Cleaners - Free Product Recovery Values are in Question

Hi Dilan,

At the end of yesterday 5/25/16 I reviewed free product recovery and measuring methods with the person who has been doing the free product recovery at RO 357, Snow Cleaners.

Based on my discussion with him, please hold off on posting my recent e-mails regarding free product until I am able to personally verify free product conditions at the site. I will be doing that verification either Friday 5/27/16 or at the beginning of next week. I will let you know what I determine.

Thank you!

Paul

Paul H. King Professional Geologist

P&D Environmental, Inc. 55 Santa Clara Avenue, Suite 240 Oakland, CA 94610

From:	Roe, Dilan, Env. Health
To:	Soo, Kit, Env. Health
Subject:	FW: RO 357 - Snow Cleaners - Free Product Recovery Values are in Question
Date:	Wednesday, July 27, 2016 3:23:50 PM

From: PDKing0000@aol.com [mailto:PDKing0000@aol.com]
Sent: Thursday, May 26, 2016 8:41 AM
To: Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Subject: RO 357 - Snow Cleaners - Free Product Recovery Values are in Question

Hi Dilan,

At the end of yesterday 5/25/16 I reviewed free product recovery and measuring methods with the person who has been doing the free product recovery at RO 357, Snow Cleaners.

Based on my discussion with him, please hold off on posting my recent e-mails regarding free product until I am able to personally verify free product conditions at the site. I will be doing that verification either Friday 5/27/16 or at the beginning of next week. I will let you know what I determine.

Thank you!

Paul

Paul H. King Professional Geologist

P&D Environmental, Inc. 55 Santa Clara Avenue, Suite 240 Oakland, CA 94610

From:	Roe, Dilan, Env. Health
To:	Soo, Kit, Env. Health
Subject:	FW: RO 357 - Snow Cleaners - Free Product in well DP3 in 2016
Date:	Wednesday, July 27, 2016 3:24:10 PM
Attachments:	0298.R20 Attachments DRAFT 1.pdf

From: PDKing0000@aol.com [mailto:PDKing0000@aol.com]
Sent: Friday, June 3, 2016 4:08 PM
To: Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Subject: RO 357 - Snow Cleaners - Free Product in well DP3 in 2016

Hi Dilan,

I have reviewed available information regarding free product thickness and removal measurements obtained during 2016 for the subject site.

I have attached a DRAFT summary Table 1 of measurements of free product thickness and volumes removed from wells, along with a Site Vicinity Map Detail (Figure 2) showing well locations at and near the site, and hydrographs for water levels in the wells (Figures 3 and 4) showing historical seasonal water level changes at the site (document 0298.R20 Attachments DRAFT 1.pdf).

Review of Figures 3 and 4 shows that monthly water level monitoring performed from July 2009 to June 2011 identified well-defined seasonal water level fluctuation patterns for the site. Figure 3 shows water levels for offsite wells only. Figure 4 shows water levels for both onsite and offsite wells (the onsite wells were not installed until September 2010, and for this reason no 2009-2010 hydrologic cycle information is provided in Figure 4).

Review of Table 1 shows that the onsite DP-series wells and the adjacent offsite wells MW1 and MW2 were all monitored on 2/4/16 and 5/2/16. The wells were monitored following detection of very strong Stoddard solvent odors and a measured thickness on 2/3/16 of 0.77 feet of free product at well DP3.

Based on the absence of free product in wells other than DP3 (with the exception of well DP1 on 2/4/16 where full time groundwater extraction was subsequently initiated, and 0.02 feet of free product in offsite well MW2 that is located near the former UST pit on 5/2/16) monitoring for free product has only been performed in well DP3 (also located adjacent to the former UST pit).

A free product thickness of 0.1 foot or greater was measured in well DP3 six times between 2/3/16 and 5/25/16.

Stoddard solvent is a clear liquid and is distinguished from water primarily based on odor, viscosity, and slipperiness. Review of the free product volumes removed identified in the Table does not appear to be accurate, and it appears that the majority of the volumes identified as removed were water. Based on discussions with the field person who monitored the free product thicknesses I am confident that these free product thickness measurements are reasonably accurate, however I do not believe that the free product volumes removed are accurate.

I suspect that free product accumulating in well DP3 is related to seasonal water level changes. I am presently waiting for additional free product to be measured in well DP3, at which time I will visit the site to verify the free product volume removal and measurement methods. I will provide you an update at that time. Until then, there clearly is free product on groundwater at the site (I have a partially filled 1-liter bottle sitting on my desk as I write this e-mail that has approximately 0.05 inches of free product floating on water that was obtained last week using a peristaltic pump to vacuum free product and water from well

DP3), however the volume removed from the ground in 2016 remains to be verified.

I am out of town Sunday 6/5/16 and Monday 6/6/16, but am otherwise available by cell phone if you have any questions or need any additional information.

Thank you!

Paul

Paul H. King Professional Geologist

P&D Environmental, Inc. 55 Santa Clara Avenue, Suite 240 Oakland, CA 94610

From:	Roe, Dilan, Env. Health
To:	Soo, Kit, Env. Health
Subject:	FW: RO 357 Snow Cleaners, Oakland - 0.9 gallons free product removed from well DP1
Date:	Wednesday, July 27, 2016 3:24:36 PM

From: PDKing0000@aol.com [mailto:PDKing0000@aol.com]
Sent: Friday, July 1, 2016 1:16 PM
To: Roe, Dilan, Env. Health < Dilan.Roe@acgov.org>
Subject: RO 357 Snow Cleaners, Oakland - 0.9 gallons free product removed from well DP1

Hi Dilan,

I visited the RO 357 Snow Cleaners site at 2678 Coolidge Avenue in Oakland today 7/1/16.

The groundwater treatment system consists of 3 carbon vessels. Fluids pumped from dual phase extraction well DP1 that may have been emulsified are able to separate in the first carbon vessel, with a reservoir located in the top of the first carbon vessel for the accumulation of any free product that may separate in the carbon vessel. Today I decanted 0.9 gallons of free product (Stoddard solvent) from the reservoir in the first carbon vessel. This free product shows that there is free product accumulating periodically in well DP1.

The Stoddard solvent is stored at the site in a labeled container pending transportation to a dry cleaning plant where it is filtered and re-used for dry cleaning.

Please let me know if you have any questions or need any additional information.

Thank you!

Paul

Paul H. King Professional Geologist

P&D Environmental, Inc. 55 Santa Clara Avenue, Suite 240 Oakland, CA 94610

From:	PDKing0000@aol.com
To:	Soo, Kit, Env. Health
Cc:	steven.carmack@pdenviro.com; Roe, Dilan, Env. Health; snowcleaners@sbcglobal.net
Subject:	Re: RO357 - Snow Cleaners - 2678 Coolidge Ave, - Recommended Reports for Review
Date:	Thursday, July 21, 2016 7:59:33 AM
Attachments:	<u>0298.L70.pdf</u>
	<u>1607248.pdf</u>

Hi Kit,

In preparation for our upcoming meeting, I recommend reviewing portions of the following documents prepared by P&D for the subject site:

o 8/19/09 Subsurface Investigation Report (document 0298.R6). This report provides geologic cross sections A-A' through G-G' with a total of 49 figures showing cross-section and plan view distributions of Chemicals of Potential Concern (COPCs) in soil, groundwater and soil gas. This report also includes a discussion of the complex geology at and near the site.

o 12/2/10 Well Installation Report (document 0298.R11). This report provides updated geologic cross sections and updated plan view distributions of COPCs in groundwater.

o 3/22/10 Soil Gas and Crawl Space Air Investigation Report (document 0298.R8). This report provides Site Vicinity Maps of COPC soil gas concentrations.

o 1/18/16 Remediation Progress and Groundwater Monitoring Report (document 0298.R18). This report includes documentation of the results of groundwater sample analysis for dissolved gases, dissolved hydrogen, and Gene-Trac testing for evidence of chlorinated ethene-degrading bacteria. Please note that Table 3 of the report incorrectly identifies SVE air monitoring as occurring in 2013, and that the table needs to be amended to identify the SVE air monitoring dates as occurring in 2014.

o 5/19/16 Crawl Space Air Sampling Report (document 0298.R19). This report provides a chronology of investigation and remediation activities at the site in the Background section of the report, and also provides a summary of historical crawl space air sample results and calculated risk and hazard associated with vapor intrusion in the report tables.

I have attached a pdf copy of the 4/16/12 Petroleum and HVOC Mass Evaluation (document 0298.L70) that we prepared and provided to the SWRCB related to the proportion of HVOC and petroleum mass at the site. The results of the evaluation are summarized at the end of the letter. The letter concludes that greater than 99 percent of the contaminant mass is petroleum. Following receipt of the letter the SWRCB approved payment of three UST Fund claims.

I have also attached a pdf copy of 7/14/16 laboratory report number 1607248 which provides EPA 8260B and gas chromatograph fuel fingerprint analysis of the chromatogram for a sample of LNAPL that was collected from the reservoir in the groundwater treatment system on 7/7/16. The LNAPL was pumped from well DP1 at the site and accumulated in the groundwater treatment reservoir. Please note that the EPA 8260B results are reported in mg/L. The results show that the sample is predominantly C9 to C12 hydrocarbons (Stoddard solvent) with 1.6 percent by weight PCE and 0.2 percent by weight TCE detected in the sample.

Copies of the 4/16/12 Petroleum and HVOC Mass Evaluation and the 7/14/16 laboratory report number 1607248 along with the 7/14/16 laboratory report chromatograms will be included in the upcoming 7/30/16 Remediation Progress Report. A draft copy of the Remediation Progress Report will be provided to you for review in preparation for our upcoming meeting.

Please let me know if you need additional information.

Thank you!

Paul

In a message dated 7/20/2016 19:18:16 Pacific Daylight Time, PDKing0000@aol.com writes:

Hi Kit,

Can we meet 27 July 2016 - 3-5 pm for this case?

Please let me know.

Thank you!

Paul

Paul H. King Professional Geologist

P&D Environmental, Inc. 55 Santa Clara Avenue, Suite 240 Oakland, CA 94610

(510) 658-6916 telephone (510) 834-0152 facsimile (510) 387-6834 cellular Paul.King@pdenviro.com

In a message dated 7/19/2016 09:48:02 Pacific Daylight Time, Kit.Soo@acgov.org writes:

Dear Mr. Turner,

This is inform you that I have been assigned as the new primary caseworker for your project. As an initial step, I would like to set up a meeting to discuss the subject site, the documents you have submitted, and to address some of the questions that your consultant P&D Environmental (Paul King) has indicated in recent emails to the Agency (Dilan Roe).

We are currently reviewing the following document that you submitted as per Alameda County Environmental Health correspondence dated 20 January 2016:

Crawl Space Air Sampling Report, dated 9 May 2016, submitted 12 May 2016

We also understand that a Remediation Progress Report is due on 30 July 2016 and look forward to receiving that.

The following are our availability, please select one and let us know whether any of the dates and times below work for you:

- 27 July 2016 3-5 pm
- 28 July 2016 9-11 am

3 August 2016 – 3-5 pm

Please let us know by <u>Tuesday 26 July</u>. If none of these dates work for your schedule, go ahead and send three new dates and times. We look forward to meeting with you.

Thank you, Kit

## Kit Soo, PG

## Senior Hazardous Materials Specialist

Alameda County Department of Environmental Health (ACDEH)

1131 Harbor Bay Pkwy

Alameda, CA 94502

Direct - 510-567-6791

kit.soo@acgov.org

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