



San Francisco Bay Regional Water Quality Control Board

Former Univar/VWR Facility, Parcel B 3775 Bayshore Blvd., Brisbane Remedial Action Plan Response to Public Comments – March 2023

For ease of review, comments are provided in regular text with responses provided in italics.

BBCAG Comments (Comments 1 through 11)

Comment 1

The monitoring of Parcel A should occur for at least 15 years with an evaluation that occurs at that time to determine whether the expectations for the degradation of the contaminants have been met. If the expectations for lowered contamination have not been met, then Parcel A should be monitored for an additional 15 years. Parcel B should be monitored for 30 years.

<u>Response 1</u>

Parcel A was monitored for three years after the completion of remediation in 2016. which included soil excavation and in-situ chemical reduction via injected amendments. and before the completion of supplemental remediation in 2022. Both 2016 and 2022 remedial actions were approved by the Regional Water Board. We determined that the warehouse was safe for use and the lagoon was unimpacted by site-related activities even before the supplemental remediation took place. The purpose of the supplemental remediation was to remove additional soil so the site could be closed without the need for long-term monitoring. The additional year of monitoring following implementation of the supplemental remediation is intended to confirm the success of the additional excavation work. Results collected to date indicate that concentrations have attained cleanup levels. The monitoring duration for Parcel A is appropriate given the removalbased remedial actions that were completed in 2016 and 2022 (i.e., the contamination was destroyed or removed rather than being managed in place). The monitoring duration for Parcel B is appropriate given the removal-based remedial actions that are proposed, coupled with a contingency plan to complete additional monitoring and/or remediation, if warranted, based on the post-remediation results. Long-term postremediation monitoring (for periods of 15 to 30 years) are typically associated with sites that are managing waste in place, such as landfills.

Comment 2

A factor that should be closely studied is the possible multiple impacts of sea level rise. The most important of which is to understand how high the San Francisco Bay and its Brisbane Lagoon will be pushed upward during the period that seas are rising. There is a need to study how the sea water composition may change and how the sea water and the contaminants and the soil changes caused by Thermal Remediation will impact the environment and may impact human health.

Response 2

As a requirement of our RAP approval, we have required a sea level and groundwater rise vulnerability assessment be performed within six months of the post-remedy verification monitoring period. The assessment should identify strategies for the long-term protection of the site from flooding and inundation due to sea level and groundwater rise, assuming 3.5 feet of sea level rise by the year 2050 and 6 feet by the year 2100, and should describe how vulnerable features and infrastructure will be protected once the remedy has been completed, and how building uses and public access will be affected/protected prior to the projected timing of sea level and/or groundwater rise.

As sea levels rise, water within the San Francisco Bay may become less saline as glacial meltwater mixes with the oceans. Groundwater may conversely become more saline as the saltwater wedge of the Bay pushes further inland. The relationship between the salinity of the Bay and/or groundwater, and the soil at the time sea level rise occurs is unknown. However, the proposed treatment remedy aims to remove all contaminants from the subsurface, so the future interaction of sea water or groundwater with onsite soils should not result in any harm to human health or the environment.

Comment 3

The soil on this site and in its vicinity may only be called on to serve modest purposes, but it is careless not to look carefully into how it will be impacted by Thermal Remediation. The Thermal Remediation causes changes in soil.

"The treatment could increase the bioavailability and genotoxicity of heavy metals, through a modification of the soil's organic matter, the speciation of heavy metals and their binding to organic matter. This study underlines the importance of measuring biological effects, in order to evaluate the risk associated with formerly contaminated soils and the efficiency of remediation."

This statement appeared in an article regarding Thermal Remediation under the category Ecotoxicity and Environmental Safety in 2010. This could mean that the remaining heavy metals could be more toxic to humans than before the remediation.

In an article in 2018, the Journal of Environmental Management also discusses the issue of balancing the soil impacts that become more pronounced as the temperature or duration of application is increased. Do we know whether the characteristics of bay mud e.g. its impermeability might be impacted by Thermal remediation? This issue should be studied further.

Thermal Remediation seems like a good way to remediate but it's impacts on the environment and residual heavy metals need study. The Remedial Action Plan is complex and detailed.

We believe that more study is needed on these issues at this location.

<u>Response 3</u>

The thermal remedy proposed is limited in duration and will not significantly affect the environment beyond the immediate footprint of thermal remediation activities, which is limited to the site and immediate vicinity. Experienced operators will be onsite daily to monitor temperature and other operational parameters and will adjust the treatment system as needed to ensure that the remedy operates efficiently and effectively and will not affect the characteristics of the soil outside of the treatment area. Monitoring will be completed during and after remediation to verify that the post-remediation conditions remain protective.

With regard to the potential impact of thermal remediation on metals in soils, the bioavailability and relative toxicity of metals depends on many factors, including but not limited to pH levels, organic carbon content or sorption, reduction oxidation (redox) conditions, and individual metal species present (NAVFAC, 2022).¹ The thermal remedy selected for the site is not expected to alter these factors following treatment. For example, the thermal remedy will achieve temperatures near the boiling point of water, but will not significantly alter the organic carbon content or the long-term sorption capacity of the soils following treatment. Potential changes to existing redox conditions (e.g., from reducing to oxidative) will be confined to the treatment zone and will be temporary in nature. Baseline geochemical conditions will return following treatment.

It is correct that subsurface microbiological activity will be temporarily affected by the thermal remedy, however studies have shown that microorganism populations recover quickly and benefit from the higher and more optimal temperatures for biological growth following a thermal remedy (Friis et. al, 2007).²

As discussed in the Remedial Action Plan and previous reports completed for the site, metals are not associated with former operations and are present in the fill and bay mud as a result of natural processes and historical anthropogenic activities. These metals include arsenic, lead, copper, and zinc. As shown in Table 2 below (NAVFAC, 2022), of these metals only arsenic is sensitive to changes in redox conditions, but its mobility is considered "Moderate to Low". Given that the potential changes in redox conditions will be confined to the treatment zone and are temporary in nature, no adverse effects due to heavy metals are expected.

¹ Naval Facilities Engineering Systems Command, Technical Report TR-NAVFAC EXWC-SH-2306, Best Practices and Risk Management Options for Metals-Impacted Sites, November 2022.

² Anne Kirketerp Friis, Julie L Kofoed, and Gorm Heron. 2007. Microcosm evaluation of bioaugmentation after fieldscale thermal treatment of a TCE-contaminated aquifer. Biodegradation 18(6):661-74. December 2007.

Metal	Redox Sensitivity	Most Common Oxidation States	Mobility/ Solubility	Complicated Aqueous Speciation	Relative Toxicity
Antimony	No	III V	Low Moderate	No	High
Arsenic	Yes	III V	Moderate Low	Yes	High
Cadmium	No	П	Low to Moderate	No	High
Chromium	Yes	III VI	Low Moderate to High	Yes	Low High
Copper	No	П	Low	No	Low
Lead	No	П	Low	No	High
Mercury	Yes	П	Low	Yes	High
Zinc	No	Π	High	No	Low

Table 2. Redox Sensitivity, Oxidation States, Mobility, and Toxicity for Target Metals at NAVFAC ERP Sites

Key geochemical factors that influence metals mobility, including pH and redox, will be monitored as part of post-remediation monitoring activities. The Remedial Action Plan includes a contingency plan to complete additional monitoring and/or remediation, if warranted, based on the post-remediation results.

More than 600 in situ thermal projects have been completed worldwide to date (Horst et al, 2021)³ and so the effects of thermal technologies are well known. A similar project using the same thermal technology was previously completed in the San Francisco Bay mud (Heron et. al, 2013)⁴ with similar results. No further study is warranted on these issues for this project.

Comment 4

The monitoring of groundwater, indoor and outdoor air and soil vapor is of great importance especially during the 232 day period the Thermal Remediation is being applied and in the months afterward. In order to be very careful the post application period should be doubled to 56 days. We continue to believe that long term monitoring of the site should be measured in decades not a few years. The point is that we are looking for the unexpected. There should be reports on a quarterly basis unless levels of pollutants are beyond regulatory limits are exceeded or if an accident occurs or if heat limits exceed 400 degrees Celsius then there should be immediate reporting. This valuable remediation is used worldwide but it is also true that all of its impacts are not well understood. All of the steps of the TCH remedy proposed should be monitored

³ John Horst, Jonah Munholland, Paul Hegele, and Jessica Gattenby. 2021. In Situ Thermal Remediation for Source Areas: Technology Advances and a Review of the Market From 1988–2020. Groundwater Monitoring & Remediation 41, no. 1, Winter 2021, 17-31.

⁴ Gorm Heron, John Lachance, and Ralph Baker. 2013. Removal of PCE DNAPL from Tight Clays Using In Situ Thermal Desorption. Groundwater Monitoring & Remediation 33(4), Fall 2013, 31-43.

closely and an ongoing record should be available to the City of Brisbane and the Public.

Response 4

We assume where the comment refers to "post application period" that it refers to the remedy's 28-day soil sampling and results evaluation period. The 28-day soil sampling and results evaluation period is simply an estimate of the time it will take to collect, analyze, review, and report the data to the Regional Water Board. As described in the Remedial Action Plan, if the soil samples meet the prescribed remedy completion metrics, the heating may be discontinued. If the soil treatment standards are not met, then heating will continue until such time as the soil treatment standards are met. Therefore, doubling the sampling period is not necessary.

Monitoring is proposed during and after remediation to ensure that thermal remediation does not inadvertently mobilize contaminants away from the site. The frequency and duration of monitoring of groundwater, soil vapor, and indoor air are consistent with agency guidance and are coupled with contingency plans that would require more monitoring (or remediation) depending on the results.

As provided in TerraTherm's Remedial Action Work Plan (Appendix B to the Remedial Action Plan), all steps of the TCH remedy will be monitored closely. Much of the operational monitoring data is recorded continuously via telemetry and is reviewed and interpreted in real-time in the field, and at least daily by TerraTherm's experts, who look for the unexpected and immediately adapt operations to meet expectations.

Comment 5

There should be a RWQCB required and enforced cooperation plan for emergencies among the Environmental Contractor, Property Owner and emergency response personnel from Brisbane Police Dept., No. County Fire Authority, San Mateo County Hazmat Officials, CalTrans, PGE and CHP that includes an exercise or two (one to be held no more 30 days before the beginning of the 232 day Thermal Remediation application) should be conducted and there should be an agreement to implement an incident command structure in an emergency.

<u>Response 5</u>

The party performing remediation will make required notifications to local, state, and federal agencies and procure required permits. These include a hazardous materials business plan that provides the municipal and county officials with information on the hazards associated with the project.

The Regional Water Board has already notified San Mateo County, CalTrans, and PG&E of the planned remedy through the State Agency CEQA notification period, which took place from January 10 to February 10, 2023. No comments were received regarding the proposed remedy. A final notification will go out to the City of Brisbane and the police and fire departments ahead of starting the treatment system, and the parties performing the remedy are expected to cooperate with any emergency exercises that these authorities require.

Comment 6

This site is extremely close and at a lower level (about 30 ft.) from U S Highway 101. The average daily traffic count on Hwy 101 at Brisbane is 226,800. That means that about 350,000 or so people pass by this spot each day. We believe that CalTrans should be advised of the project and the 232 days that the extreme heat will be applied.

<u>Response 6</u>

The effects of heating will dissipate about 10 to 15 feet from the heater cans and therefore will not have any effect on Highway 101, located over 500 feet from the site. CalTrans has been notified as part of the CEQA process.

Comment 7

We ask that there be minute by minute monitoring of the stack that releases air, water vapor and pollutants. The top of the stack is about 10' or 15' above the surface of 101. The monitoring should include an automatic alarm and shut off valve should anything go wrong that would result in pollutant levels going above their regulatory limits or there is unexpected extreme heat escaping. The automatic alarm should notify emergency officials e.g. No. County Fire Authority and County HazMat Team.

The standards for building and operating this Remediation Plan should be both conservative and rigorous. There is the potential for both short term and long term damage to the environment and all of its inhabitants.

Response 7

Stack emissions will be monitored in accordance with permit requirements established by the Bay Area Air Quality Management District. In addition to the permit requirements, operational monitoring will be completed by the system operator daily.

The Remedial Action Work Plan shows that the standards for building and operating this remedy is both conservative and rigorous. The Remedial Action Work Plan provides for minute-by-minute monitoring of the process, including combustion temperature in the thermal oxidizer and in the final exhaust of the 'stack'. Monitoring includes automatic alarms and shut-offs should anything go wrong that would result in pollutant levels exceeding the regulatory limits or in the case of unexpected heat escaping. In the event of a potential outage of the thermal oxidizer, a permitted backup vapor treatment system will be operated. The backup system will contain two vapor-phase granular activated carbon vessels in series (and one in reserve) followed by one potassium permanganate vessel.

Comment 8

There should be studies of where residual pollutants will be blown by the wind. Winds from the East, Southeast or Northeast will blow them into the Habitat Conservation Plan Area.

<u>Response 8</u>

There is no earthwork associated with the thermal remedy that would bring pollutants to the surface or cause them to be blown by the wind. The thermal treatment system being proposed for use at the site also does not generate dust. Potential future earthwork activities at the site (e.g., future redevelopment work) will be completed in accordance with the approved Soil Management Plan for the site to protect worker safety and manage excavated materials in accordance with applicable regulations. Pollutants will not be emitted out of the exhaust stack of the thermal oxidizer. The stack emissions will be monitored in accordance with permit requirements established by the Bay Area Air Quality Management District. In addition to the permit requirements, operational monitoring will be completed by the system operator daily.

Comment 9

There are thousands of people working on the other side of 101 in the Buildings on Sierra Point. There should be a plan in place to protect them if an emergency occurs.

Response 9

As discussed above, residual pollutants will not be emitted out of the exhaust stack of the thermal oxidizer and heating affects will be limited to the immediate vicinity of the on-site treatment area. See Response to Comment 5.

Comment 10

There should be a high level of security during the entire project and especially during the 232-day Thermal Application period and the cooling off period. There should be an adequate fence and it should be guarded.

Response 10

The system will be securely contained within the existing warehouse building to the extent possible and within a fenced area for system components that need to be staged outside. Operators will be onsite daily to ensure that security is maintained.

Comment 11

After thermal desorption, the total amount of heavy metals (HMs) is enriched in baghouse filter dust. To further understand the related environmental impact, the leaching characteristics under various conditions must be explored. Therefore, this study aimed to examine the leaching characteristics of seven HMs in the dust generated in the direct-fired thermal desorption process and to compare the differences in heavy metal leaching characteristics in the soil before and after thermal desorption. The leaching characteristics and bioaccessibility of seven HMs-arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), nickel (Ni), and zinc (Zn)-were analyzed in dust and in soil before and after thermal desorption. The activity of HMs in dust was strong. Therefore, environmental effects and effects on human health should be considered in the treatment of soil and dust after thermal desorption.

<u>Response 11</u>

The proposed remedy will be performed in situ and the study cited appears to be related to a rotary kiln ex-situ type of thermal treatment. The thermal treatment system being proposed for use at the site is in situ thermal conduction heating. The process does not generate dust or baghouse dust. Therefore, the study is not relevant to the treatment technology that will be implemented at the site.

Dana Dillworth Comments (Comments 12 – 23):

Comment 12

I appreciate that the properties are vacant. In a prior public hearing, we were told that the only protective measure from VOC exposure to the employees in Parcel "A" was to leave the warehouse doors open. I was mortified that an industrial land use designation could render such a callous disregard for worker safety. I expect workplaces to be safe from breathing toxic vapors, not conditional to leaving the windows open, or no cracks in the floor, or some seasonal variation.

Response 12

The site is safe for current uses. The site was also safe for site workers prior to implementation of the supplemental remediation work at Parcel A in 2022, even with the doors closed. Leaving the warehouse doors open was presented as an option to provide an additional level of safety during the excavation activities.

Comment 13

You need to note that industrial uses are not permitted in Brisbane outside of grandfathered-in Kinder Morgan and that these properties are often considered for residential use during Housing Element review. Due to the recent shift in home/work-place norms, it is logical to insist that toxic sites be cleaned up to higher standards as newer work-live patterns may make your 8-hour exposure standard an insufficient increment. At best, in the Ic's you should disallow any 24-hour work schedules... such as security.

Response 13

The site is zoned TC-2 (within the Southeast Bayshore Commercial District)⁵ and the property owner has recorded an environmental land use control restricting the following land uses: housing, residences, hospitals, schools, daycares, and hospices. The cleanup plan and cleanup levels are consistent with theses land use designations.

Comment 14

I am concerned that you have deemed the TCH method to be nearly 100% effective while it only remedies some VOC's... leaving heavy metals and rail-related pesticides in place. You have insufficient pre-treatment baseline data and insufficient post-remediation testing for this project. These inadequacies exist for the prior-approved Parcel "A" remediation as well.

While the proposed method does accelerate the movement of VOC's, your data seems to have been gathered in an historical drought period (July/August 2021 and one test event in 2017.)

You need to understand this small watershed better and anticipate that the chemicals may reemerge When the land seeks its equilibrium as happened at the Schlage Lock site.

⁵ <u>https://www.brisbaneca.org/cd/page/zoning-information</u>

Response 14

A robust understanding of the site has been developed using data collected from hundreds of samples collected over multiple years. As discussed in the Remedial Action Plan and previous reports completed for the site, metals are not associated with former operations and are present in the fill and bay mud as a result of natural processes and historical anthropogenic activities. The fill and bay mud are not unique to the site. There is no data indicating that pesticides were stored or used at the site.

Comment 15

CEQA requires a complete characterization of the site to make an informed decision. You are not properly disclosing the site conditions by omitting Parcel "C" and areas east of the Caltrains rail tracks. Parcel "C," the tunnel property is probably the source of the persistent vapor of Naphthalene reported in earlier public hearings. While it is not part of the Brownfield application, it should be on your radar as insufficiently studied and its potential impacts to this property. Omission of this information makes this a piecemealed approach. It is my belief that storage and/or spillage of chemicals in the old tunnel impacts this property as it is up-gradient to the lagoon and should be ruled out as a contributing factor.

Response 15

Parcel C is not listed in the Brownfields application because the party performing remediation did not operate at Parcel C and investigation data collected at Parcel B confirmed that organic contamination subject to remediation at Parcel B has not migrated to Parcel C. With respect to historical operations and cleanup at Parcel C, refer to the information available at Geotracker for the "Brisbane Corp Yard" (T0608100941). Investigation and remediation work was completed by the City of Brisbane in the late 1990s to early 2000s. The case was closed by San Mateo County on September 28, 2001.

Comment 16

If this is the only chance to get Consolidated Chemical's former spills cleaned up, then you have failed to meet your RAO#4. The water entering the site from San Bruno Mountain is clean. It should be clean on the other side of the tracks... however the proposed remedy only goes to the property line and only a few feet below surface. You have no indication of any environmental studies or concern for protection from lateral movement beyond the depth of a few surface probes. Other remediation methods not considered would be to create an impermeable membrane to 55 feet (OBM) and disallow any further underground chemical migration.

<u>Response 16</u>

Various remedies for Parcel B have been considered including containment, as suggested. The remedy, comprising thermal remediation, institutional controls, engineering controls, and natural attenuation, has been judged by competent environmental professionals to be the best remedy for this site and treats organic contamination down to 55 feet below ground surface (the full depth at which contamination was detected). The contamination has not migrated offsite above protective levels and post-remediation monitoring will evaluate groundwater quality at

the downgradient site boundary. The Remedial Action Plan includes a contingency plan to complete additional monitoring and/or remediation, if warranted, based on the postremediation results.

Comment 17

Years ago, the southern end of the lagoon Audubon reported to have a potential clapper rail sighting, a rare and endangered species. You need to make sure the lagoon isn't harboring a gaseous bubble of volatile carcinogenic substances or that its soils saturated with chemicals are waiting to burp or liquify during an earthquake. Was liquefaction part of your risk assessment? Your assertion that fully saturated, unregulated fill above loose Young Bay Mud does not pose a health risk is incomprehensible. What about sea-level rise? What impacts will being at 10' MSL have on future public health? Please review your underlying assumptions.

While there is mention of movement of groundwater there is no mention of artesian effects that are obvious on the other end of the Lagoon during negative tides. Omitted or perhaps understudied, under-stated? Further investigation of impacts to the lagoon may require remediation techniques for the lagoon such as aeration, improving flow, skimming and long-term monitoring. Natural attenuation of thousands of pounds of residual toxic substances is a big job. It seems that wildlife and future generations were under-represented in your RAO and cleanup level discussions. They are worthy of further review.

Response 17

A robust understanding of the site has been developed using data collected from hundreds of samples collected over multiple years. The contamination has not migrated offsite above protective levels and post-remediation monitoring will evaluate groundwater quality at the downgradient site boundary. The Remedial Action Plan includes a contingency plan to complete additional monitoring and/or remediation downgradient of the site, if warranted, based on the post-remediation results. A removal-based remedy was selected, among other reasons, to limit the potential for migration in the future due to earthquakes or sea level rise. As discussed in Response 2, the Regional Water Board is requiring a vulnerability assessment to assess the potential impacts of sea level and groundwater rise.

Comment 18

This RAP is inadequate and while a promising technique is proposed, it should be considered an interim measure. This new technology may have side effects, yet to be discovered, particularly when groundwater is at surface level.

Response 18

Thermal remediation is not a new technology and its success in remediating numerous sites with similar conditions to the subject site is well documented. As stated in the Remedial Action Plan, thermal remediation is only part of the final, protective remedy for the site. The final remedy is comprised of thermal remediation, institutional controls, engineering controls, and natural attenuation. Monitoring completed prior to, during, and after remediation will ensure that the remedy achieves the remedial action objectives indicated in the Remedial Action Plan.

Comment 19

Will 600 degree C groundwater impact the lagoon or tracks? Seems like the steam in the outer wells would kill all life forms.

<u>Response 19</u>

The groundwater will only be heated to about 100 degrees Celsius. The remedy proposed is limited in duration and will not significantly affect the environment beyond the footprint of thermal remediation activities, which is limited to the site and immediate vicinity. Steam will be captured with the remedy's vacuum wells and will not impact human health or wildlife.

Comment 20

Only one year post-remediation testing is inadequate. Where else would you accept a one year warrantee? There is reference to chemicals heating at different temperatures creating a variable in the efficacy of this technique, but doesn't mention that metals and other chemicals may change their compositions, their pH's, and migrate at faster rates. Elements that would normally be stable at ambient temperatures may have a multiplier effect with this intense temperature change. It needs longer monitoring which should also be part of a sea-level rise study. By leaving these forever chemicals in place, this land remains subject to wastewater discharge requirements.

<u>Response 20</u>

The monitoring duration for Parcel B is appropriate given the removal-based remedial actions that are proposed, coupled with a contingency plan to complete additional monitoring and/or remediation, if warranted, based on the post-remediation results. Key geochemical factors that influence metals mobility, including pH and oxidation-reduction potential will be monitored as part of post-remediation monitoring activities. Long-term post-remediation monitoring (for periods of 15 to 30 years) are typically associated with sites that are managing waste in place, such as landfills.

Comment 21

Finally, the plan may put Bayshore drivers at risk as the stack of toxic pollutants seems to vent at street level. How will you inform drivers of their Prop 65 notice warning of potential exposure to toxins? Can the releases be scheduled at night or weekends when there is less traffic? Is there a double-scrubbing system?

Response 21

Extracted vapor will be treated using a thermal oxidizer permitted by the Bay Area Air Quality Management District. In the event of a potential outage of the thermal oxidizer, a permitted backup vapor treatment system will be operated. The backup system will contain two vapor-phase granular activated carbon vessels in series (and one in reserve) followed by one potassium permanganate vessel.

Comment 22

This piecemealed approach is akin to a No Smoking section in an aircraft. Please reopen the RAP for Parcel "A" and require at least five years of post-remediation observation, more than two air tests, and testing of tidal and seasonal changes to this contaminated site to confirm the technique's efficacy.

Response 22

Results collected to date indicate that concentrations have attained cleanup levels. Parcel A was monitored for a period of three years after the completion of the initial source removal remediation in 2016 and before the completion of supplemental remediation in 2022. The warehouse was safe for use and the lagoon was unimpacted by site-related activities before the supplemental remediation took place. The additional year of monitoring following the supplemental remediation is intended to confirm the success of the additional excavation work.

Long-term monitoring (for periods of 15 to 30 years) is typically associated with sites that are managing waste in place (e.g., landfills). The monitoring duration for Parcel A is appropriate given the removal-based remedial actions that have been completed in 2016 and 2022 (i.e., the contamination was destroyed or removed rather than being managed in place).

Comment 23

Parcel "C"'s toxins should be studied concurrent with these plans. An overall plan that protects trench-diggers from exposure by installing an underlayment barrier should be required of all parcels as there is no mention of the arsenic and other heavy metals in the soil. You have conveniently overlooked the former rail-use impacts.

Response 23

Parcel C is not listed in the Brownfields application because the party performing remediation did not operate at Parcel C and investigation data collected at Parcel B confirmed that organic contamination subject to remediation at Parcel B has not migrated to Parcel C. With respect to historical operations and cleanup at Parcel C, refer to the information available at Geotracker for the "Brisbane Corp Yard" (T0608100941). Investigation and remediation work was completed by the City of Brisbane in the late 1990s to early 2000s. The case was closed by San Mateo County on September 28, 2001. Further, there is a report titled Slab And Piping Removal, Limited Soil Investigation, Oil Stain /Tar Sampling, and Ash Pile Sampling (February 22, 2007) that summarizes what constituents were discovered inside the tunnel.

As stated in the Remedial Action Plan, thermal remediation is only part of the final, protective remedy for the site. The final remedy comprises thermal remediation, institutional controls, engineering controls, and natural attenuation. Institutional controls including a deed restriction and approved soil management plan are in place to protect future workers from exposure to metals that are not associated with former operations and are present in the fill and bay mud as a result of natural processes and historical anthropogenic activities.