



City of Ripon

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April 29, 2019

The Honorable Heath Flora
Assembly District 12
578 N. Wilma Ave., Suite B
Ripon, CA 95366

Dear Assemblymember Flora:

I write to thank you for hosting the recent town hall meeting that gave city leaders an opportunity to listen to questions and learn more about public health concerns generally, and around Weston Elementary School, particularly. This letter is accompanied by answers to questions that were raised about both drinking water and wireless technology regulations that are specific to the City of Ripon.

The answers to two questions asked most often of city staff are provided below:

“Does Ripon have more childhood cancer cases than other communities?”

No. The Cancer Registry of Greater California (CRGC) is a program of the California Department of Public Health’s Chronic Disease Surveillance and Research Branch and is California’s mandated statewide population-based cancer surveillance system. The CRGC staff has evaluated the number of cancer cases in children between the ages of 0-19 over the most recent 10-year time period of collected data (2007-2016), and has compared Ripon’s childhood cancer rate to the rate in other cities of San Joaquin County. The CRGC response is provided as Addendum #1 where their staff concluded that there is no evidence of an excess number of childhood cancer cases in Ripon, as compared to other cities in San Joaquin County.

“Is the water in Ripon safe to drink?”

Yes. The City of Ripon provides safe and reliable drinking water to the residents and businesses of Ripon, including Weston Elementary school. Ripon’s water meets all established drinking water standards as set by the U. S. Environmental Protection Agency (US EPA) and the State of California.

The California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) regulates public drinking water systems and sets Maximum Contaminant Levels (MCLs) for nearly 100 recognized drinking water compounds. The City regularly tests its drinking water and supplies the test results to the State at regular intervals. The most recent test results again confirm that the City’s drinking water meets DDW standards.

The California Office of Environmental Health Hazard Assessment (OEHHA) is required to establish public health goals (PHGs) as, “the level of a chemical contaminant in drinking water that does not pose a significant risk to health”. The OEHHA website makes clear: “PHGs are not regulatory standards.” The SWRCB is to set MCLs at a level as close to its PHG as is technologically and economically feasible, placing primary emphasis on the protection of public health. Municipal water providers like the City of Ripon are required to comply with the established MCLs, not PHGs.

Ripon’s drinking water contains a number of compounds that are regulated—a fact that applies to many public water suppliers in the State. One of the compounds discussed at the town hall meeting, and of interest to local media, is trichloroethylene (TCE) and its breakdown product known as CIS-1,2 DCE. Addendum #2 includes test results for TCE and CIS-1,2 DCE from all active City wells and compares to the MCL and the PHG for each compound.

Table 1 summarizes the MCLs and PHGs for both TCE and CIS-1,2 DCE and the range of measured amounts in each of the City’s wells since 2009.

Table 1. Summary of TCE and CIS-1,2 DCE MCLs, PHGs, and minimum and maximum measured amounts since 2009

Well	TCE (µg/L)				CIS-1,2 DCE (µg/L)			
	MCL	PHG ^a	Minimum Measured Amount	Maximum Measured Amount	MCL	PHG ^{a,b}	Minimum Measured Amount	Maximum Measured Amount
03	5	1.7	0	1.6	6	13	0	5.4
07			0	0			0	0
10			0	0			0	0
13			0	0			0	0
18			0	0			0	0

Note(s):

- a. Please note that the City of Ripon 2017 Consumer Confidence Report (CCR) shows the incorrect PHG values. The CCR will be amended to show the correct PHG, as published in the 2019 PHG report from the Association of California Water Agencies.
- b. CIS-1,2 DCE is one of 31 contaminants with an MCL equal to or below the PHG. The SWRCB states these contaminant MCLs provide the same or greater protection to the drinking water consumer as their PHGs.

As seen in Table 1, results for TCE and CIS-1,2 DCE samples collected since 2009 from all active City of Ripon wells supplying drinking water have been below both MCL and PHG values. In the last 10 years, one active groundwater well (Municipal Well #3) that supplied drinking water contained measured amounts of TCE and CIS-1,2 DCE. The concentration of CIS-1,2 DCE recently increased close enough to the MCL that the City made the proactive decision to stop supplying drinking water from Municipal Well #3.

We remain committed to responding to questions from our residents—including many recent inquiries from local media—and to providing the clear information all seek about our City’s drinking water and wireless technology regulations. We thank our elected officials, their staff and state experts who are helping the City obtain the information so Ripon residents feel secure and confident in our commitment to protect public health. We recognize that after reading this letter, some may continue to have questions or concerns. Thus, if you or your constituents have any questions or would like to discuss any part of this information in more detail, I am available to meet at your convenience. I will also arrange meetings with additional experts who may be helpful in answering further questions, as needed.

Sincerely,



Kevin Werner
City Administrator

Cc: City of Ripon City Council
San Joaquin County Board of Supervisors
Ripon Unified School District Board of Trustees
The Honorable Cathleen Galgiani, California State Senate District 5
The Honorable Josh Harder, U.S. House of Representatives (CA-10)
Central Valley Regional Water Quality Control Board

Response to Town Hall Meeting Questions

The community is hearing a lot about an increase in the number of childhood cancer cases in Ripon. How do the cancer rates in Ripon compare to other communities?

The Cancer Registry of Greater California (CRGC) is a program of the California Department of Public Health's Chronic Disease Surveillance and Research Branch and is California's mandated statewide population-based cancer surveillance system. One of the responsibilities of the CRGC is to respond to questions and concerns from residents and organizations regarding cancer in their communities. The CRGC has reviewed the most recent 10 years of registry data (2007-2016) that is available and found no evidence of an excess number of childhood cancer cases in Ripon. The complete report is attached as Addendum #1.

What is being done to ensure the drinking water in Ripon is safe?

The City of Ripon is committed to providing safe and reliable drinking water to the community. The City has a permit issued by the California State Water Resources Control Board Division of Drinking Water (DDW) to serve drinking water to the community. We meet all established drinking water standards, including the Maximum Contaminant Levels (MCLs) as set by the U. S. Environmental Protection Agency and State of California. The City reports the concentration of the regulated compounds found in Ripon's drinking water to the California State Water Resources Control Board Division of Drinking Water to ensure we are meeting these standards.

This information is also summarized in the City of Ripon's Consumer Confidence Reports (CCR) we release each July. The CCR provides the public with information about:

- Source of drinking water;
- A list of regulated contaminants that have been found to be present over a calendar year, the concentration of those contaminants as compared to the Public Health Goals (PHGs), and MCLs;
- Potential health effects from consuming contaminated water and additional safeguards against water-related illnesses; and
- Contaminant levels in the water system compared to national and state standards and any violations of health-based standards.

Is the water in Ripon safe to drink?

Yes. Ripon's drinking water contains a number of compounds that are regulated—a fact that applies to many public water suppliers in the State. One of the compounds discussed at the town hall meeting, and of interest to local media, is trichloroethylene (TCE) and its breakdown product known as CIS-1,2 DCE. Addendum #2 includes test results for TCE and CIS-1,2 DCE from all active City wells and compares to the MCL and the PHG for each compound.

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Why are there different standards for “Public Health Goals” and “Maximum Contaminant Levels”?

The California Office of Environmental Health Hazard Assessment (OEHHA) is required to establish PHGs as “the level of a chemical contaminant in drinking water that does not pose a significant risk to health”. The OEHHA website makes clear: “PHGs are not regulatory standards.” The SWRCB is to set MCLs at a level as close to its PHG as is technologically and economically feasible, placing primary emphasis on the protection of public health. Municipal water providers like the City of Ripon are required to comply with the established MCLs, not PHGs.

As seen in Addendum #2, results for TCE and CIS-1,2 DCE samples collected since 2009 from all active City of Ripon wells supplying drinking water have been below both MCL and PHG values.

For additional information about how the State of California sets MCLs and PHGs, we encourage residents to engage with the California State Water Resources Control Board Division of Drinking Water and California Office of Environmental Health Hazard Assessment.

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/reviewofmaximumcontaminantlevels-2017.pdf

Nestlé contamination has polluted our water and caused health impacts. Why has nothing been done? Is a problem being covered up?

For more than 30 years, Nestlé has worked with the City of Ripon and under the direction of the Regional Water Quality Control Board (Water Board) to monitor the safety of the drinking water supply and act to protect the health of the people in Ripon. Nestlé has made and continues to make every effort to remediate TCE, which was associated decades ago with decaffeinated coffee production at its long-closed facility. Working closely with the City and other experts in water management, Nestlé has implemented a variety of coordinated cleanup and water protection measures to significantly reduce the chemicals of concern and limit the spread of impacted groundwater. All entities involved are continually working together to ensure the levels of TCE and related compounds in the municipal drinking water supply do not

exceed MCLs. Nestlé's TCE cleanup efforts have had a positive impact and we realize the importance to continue to monitor these remediation efforts to ensure the continued safety of the drinking water supply.

Why does the City not pursue a surface water supply source?

The City is pursuing the purchase of a limited amount of available surface water from South San Joaquin Irrigation District that would allow the City to supplement the volume of water used from groundwater. This also provides the added benefit of increasing long-term reliability of the City's groundwater. Available surface water is limited in the City, and thus it is simply not feasible to completely transition to a surface water source in the foreseeable future.

Why is the City allowing 5G to be installed in Ripon? Some residents are concerned 5G is not safe.

The City is mindful of the ongoing public debate over possible health impacts associated with 5G emissions. However, under federal law, the City has very little discretion over the installation of 5G equipment. The Federal Communications Commission (FCC) is an independent U.S. government agency overseen by Congress; they are responsible for implementing and enforcing America's communications laws and regulations. A recent FCC Order (Order 18-133) required cities to have a design and permitting process in place by January 14, 2019, which would allow wireless carriers to install their equipment on City property. Specifically, the order allows Small Wireless Facilities (SWF) to be installed, to complete the coverage and capacity upgrades required to achieve high quality coverage, otherwise known as 5G technology.

In response to this FCC action, the City Council has passed an ordinance that prioritizes the areas these facilities can be located, preferring those areas of Ripon that are outside of residential zones. The ordinance goes as far as legally possible in regulating 5G installations. Additionally, we are monitoring lawsuits challenging the FCC Order and will be ready to modify the current ordinance as quickly as needed, if the FCC Order is overturned.

There are other cell towers around Ripon, what is going to happen to those?

Cell towers are regulated in a different manner than the Small Wireless Facilities that are associated with 5G technology. The City of Ripon's municipal code mandates the following conditions regarding the placement of cell towers:

- Special use permit (approved by the Planning Commission) required for placement of cell towers that considers health consequences and economic injury to property;
- Cell tower placement maintains a separation of at least 500 feet from residential zones; and
- Cell towers must comply with all FCC regulations, including radio frequency emissions.

There are currently no plans to remove or relocate other existing towers in Ripon.

Where is the Sprint cell tower at Weston being relocated?

Sprint is currently evaluating alternative sites and no decision has been made as to where the tower would be located. Sprint is aware of all applicable local, state, and federal requirements that need to be followed when selecting a new cell tower site. If a site is located within the jurisdictional boundary of the City of Ripon, Sprint will be required to complete an application and follow the mandated process to ensure the site fully meets all applicable requirements.

ADDENDUM #1



Assessment of Childhood Cancer Occurrence in Ripon, California, 2007-2016

Cancer Registry of Greater California
March 19, 2019

Introduction

The California Cancer Registry (CCR) is a program of the California Department of Public Health's Chronic Disease Surveillance and Research Branch and is California's mandated statewide population-based cancer surveillance system. The CCR collects information on the occurrence of cancer and first course of treatment for nearly all new cancer cases diagnosed among California residents since 1988. As one of the three regional registries that make up the CCR, the Cancer Registry of Greater California (CRGC) collects and manages cancer-related data from 48 counties in the state. The mission of CRGC is to record timely and quality cancer information and use this data to help prevent cancer and reduce cancer morbidity and mortality.

One responsibility of the epidemiologists at CRGC is to respond to questions and concerns from residents and organizations regarding cancer in their communities. Some concerns that arise are suspected cancer clusters. According to the Centers for Disease Control and Prevention (CDC), a cancer cluster, sometimes referred to as a cancer excess, is defined as a greater-than-expected number of cases that occurs within a group of people in a geographic area over a defined period of time.¹

In March 2019, CRGC became aware of a concern reported by the Ripon Unified School District in San Joaquin County regarding childhood cancer and a cell phone tower installed on the Weston Elementary School campus. At the request of the San Joaquin County Public Health Services, CRGC conducted the following assessment of the observed and expected numbers of new cancer cases among children in Ripon. While the CRGC cannot address any potential radiation exposure to residents in this area, registry data can be used to determine whether or not there is an excess of cancer in this particular region in relation to the incidence of cancer in San Joaquin County as a whole.

Methods

Cancer registry data was used to determine whether an excess number of cancer cases were diagnosed in children of Ripon, given the expected occurrences of these cancers in the population of San Joaquin County. CRGC determined the observed number of cancer cases diagnosed among children ages 0-19 years in Ripon between 2007-2016, the most recent 10 years of registry data available for analysis. The analysis included cases diagnosed among residents of census tracts 50.01, 50.03, 50.04, and 51.06 in San Joaquin County. The area consisting of these four census tracts will be referred to as Ripon for the purposes of this report.

The observed number of cases in Ripon was then compared to the number of cases one would expect to see if the pattern of cancer occurrence in Ripon was the same as the reference area, San Joaquin County. This number is calculated by multiplying the age-, sex-, and race/ethnicity-specific cancer incidence rates for San Joaquin County by the population of Ripon.

To adjust for population size and differences in cancer occurrences in various population subgroups, the age, sex, and race/ethnicity distribution of Ripon was determined using data reported in the 2010 Census. Weights representing the proportions of the population in each unique age, sex, and race/ethnicity category were then multiplied by the average annual age-, sex-, and race/ethnicity-specific cancer incidence rates for San Joaquin County in the same demographic categories during 2008-2012. The sum of these products was multiplied by the size of the population of Ripon, yielding the expected number of new cases in this area during 2010 if residents of this area experience the same average annual cancer risk as San Joaquin County for 2008-2012. Assuming no growth in tract size, the expected count for 2010 was then multiplied by 10, yielding the expected count of new cancer cases in Ripon during the 10-year period of 2007-2016.

The observed and expected number of cases in Ripon was used to calculate standardized incidence ratios (SIRs) and 95% confidence intervals (CIs). The SIR is a ratio of the observed to expected counts of new cancer cases ($SIR = \text{observed}/\text{expected}$). A value < 1.0 indicates that observed counts are less than expected counts, while a value > 1.0 indicates that observed counts are higher than expected counts. A value equal to or approximately equal to 1.0 indicates that observed counts are the same or nearly the same as what is expected. This indicates a nominal or null finding that neither represents a cancer excess or deficit. The 95% CIs represent a range of values that one can be 95% certain contains the true SIR. If the value of 1.0 falls within this range, then the result is not statistically significant and indicates that the ratio of observed to expected counts of cancer cases is no greater or less than the level that can reasonably be attributed to random error.

This method for investigating cancer concerns is recommended by the CCR and the CDC and Council of State and Territorial Epidemiologists.¹

Results

The observed and expected numbers of cancer cases among children (ages 0-19 years) residing in Ripon census tracts overall and by gender are listed in Table 1. Between 2007-2016, 14 cancer cases were reported among children residing in the census tracts of interest. This did not differ from the total expected number of 13.7 ($SIR = 1.0$ overall). There were no significant differences by gender.

Table 1. Observed and expected numbers of childhood cancer cases (ages 0-19 years) and standardized incidence ratios (SIRs) in Ripon, California, 2007-2016.

Gender	Observed Count	Expected Count (95% CI)	SIR (95% CI)
All	14	13.7 (6.2, 26.8)	1.0 (0.5, 2.0)
Male	8	7.7 (2.6, 18.6)	1.1 (0.3, 2.4)
Female	6	6.0 (1.5, 15.7)	1.0 (0.3, 2.6)

The SIRs indicate that the number of cancer cases observed in Ripon between 2007-2016 is neither greater than nor less than what would have been expected for an average risk community having the demographic configuration of this population.

Discussion

The above results indicate that there were no statistically significant findings. In other words, there was no statistical evidence that there were more observed cases of childhood cancer in Ripon between 2007-2016 than what would have been expected.

There are important limitations of this assessment that should be noted. Delays in reporting prevent the inclusion of more recently diagnosed cases (2017 through present) in this analysis. Additionally, those diagnosed with cancer in the census tracts of interest may have been exposed to cancer-causing agents in a different geographic area. It can take years of exposure to a carcinogen before the development of cancer, and the registry does not collect information on how long people have lived in an area or where they lived before. In addition, the registry has no information on environmental exposures or exposure levels to known carcinogens.

Expected counts in this assessment do not consider population growth after the 2010 Census. Because most California communities have experienced population growth, expected counts of cancer cases are likely to be underestimated. This may have overestimated the SIR findings. However, despite possible inflated SIR estimates, this assessment determined that the SIRs for both male and female childhood cancers are near the null hypothesis of 1.0. This does not indicate a generalized childhood cancer excess in the population residing in Ripon. It is reasonable to believe that future adjustment for population growth in this census tract will reduce the SIR even more.

While these findings do not address possible radiation exposure experienced among residents of Ripon, based on this analysis of cancer registry data, **there is no evidence of an excess number of childhood cancer cases in Ripon between 2007-2016.**

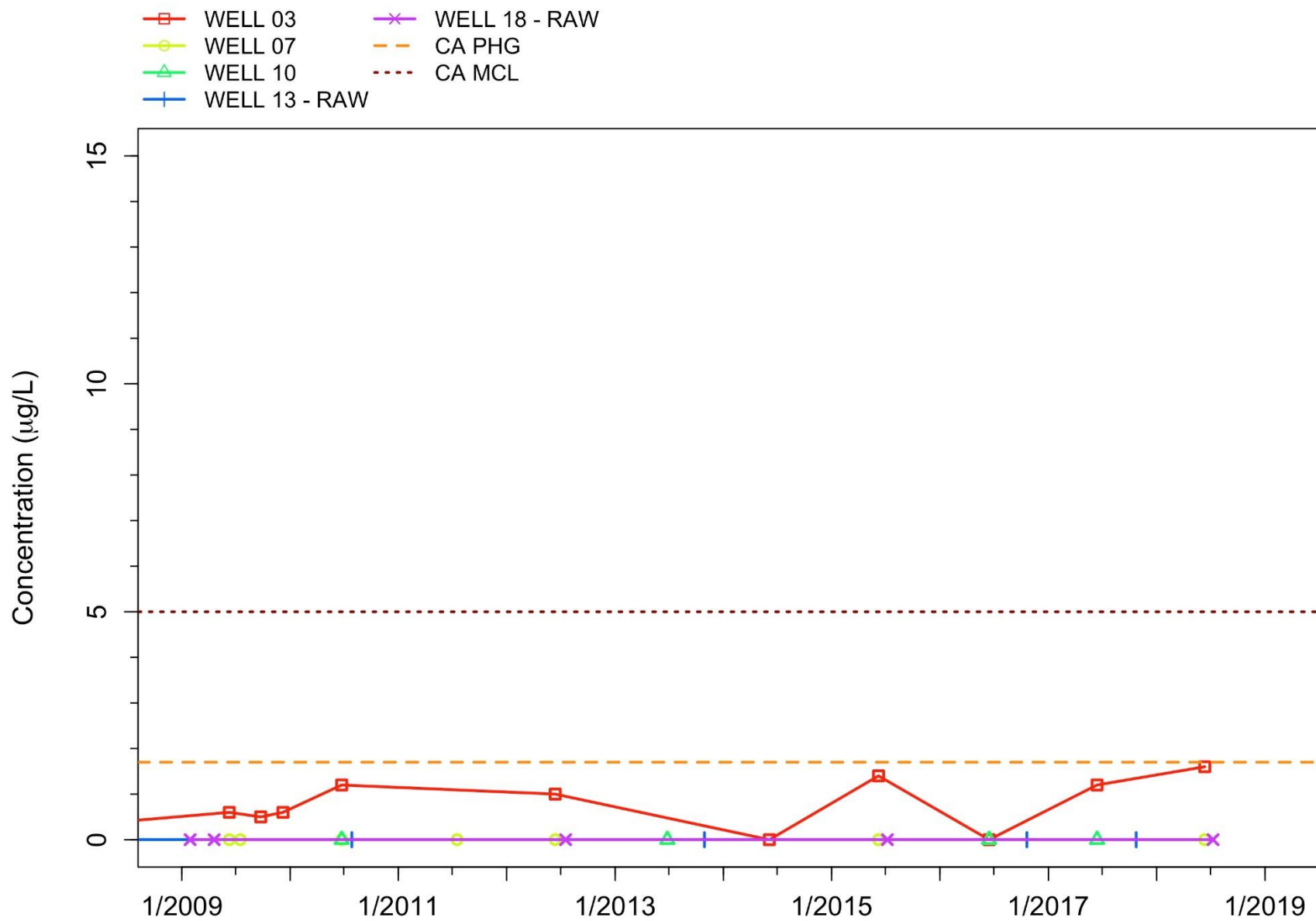
Cancer is a general term for many diseases, and most cancers have very different environmental and genetic causes. Knowledge of several cases in a defined area does not always indicate a cancer cluster, as certain numbers and types of cancer are expected in any defined geographic area. Oftentimes it is difficult for epidemiologists to provide answers regarding cancer concerns and perceived cancer clusters. Although most cancer clusters occur by chance, it is not uncommon for people to be concerned that cancer clusters are caused by an exposure that occurred in their environment. However, it is extremely rare to prove that a suspected cancer cluster is associated with an environmental carcinogen. Unfortunately, most of the time individual diagnoses are unable to be linked to specific causes.

References

1. Centers for Disease Control and Prevention. Investigating Suspected Cancer Clusters and Responding to Community Concerns: Guidelines from CDC and the Council of State and Territorial Epidemiologists. MMWR 2013;62(8):
<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6208a1.htm>

ADDENDUM #2

TCE Timeseries



Cis-1,2-DCE Timeseries

