



FOR IMMEDIATE RELEASE: April 15, 2020

Water Samples from Homes Near Construction Blunder Were Found to Contain Trace Metal Levels that Exceed EPA Drinking Water Standards

WIMBERLEY, TX Three days following the March 28 underground loss of 36,000 gallons of drilling fluid during construction of the Permian Highway Pipeline in Blanco County, two affected homeowners captured well samples of their chocolate-colored drinking water and had the samples delivered to LCRA Environmental Laboratory Services in Austin for testing and analyses.

The resulting groundwater quality data set has been submitted to the Texas Railroad Commission to inform its current Notice of Violation action against Kinder Morgan issued on April 9, 2020. The data set includes 14 selected inorganic chemical constituents (metals) that have been analyzed and compared to the values for the Environmental Protection Agency's (EPA) water quality criteria by Raymond Slade, Jr., a certified professional geologist with 35 years at USGS and 17 years as a hydrology consultant in Central Texas.

Mr. Slade, who volunteered his professional expertise and opinion for the analyses, put his stamp on a report that includes six constituents known as Class 1 carcinogens found in excess of EPA drinking water regulations, including aluminum, arsenic, beryllium, cadmium, chromium and nickel. In interpreting this data, it is important to note that this was one sampling event right after the incident and concentrations are expected to lessen over time. However, according to Mr. Slade's report, "Many pollutants including carcinogens are known to be contained in the spilled drilling fluid, despite denial of such by a Kinder Morgan spokes[person]."

While none of the above chemicals in this preliminary report are identified as single-exposure threats to human health, Wimberley Valley Watershed Association (WVWA) and Trinity Edwards Springs Protection Association (TESPA) encourage homeowners within a two-mile radius of the site where drilling fluids were discharged [see map attached] to watch for changes in taste, color or appearance of well drinking water. The Trinity Aquifer is a karst aquifer that serves as the main water supply for the surrounding community and is known for rapid groundwater movement through cracks, faults, and cave conduits.

(more)

For safety and peace of mind, concerned well owners are further encouraged to have well water tested by an accredited, professional water quality laboratory. Recommended laboratories include the [Edwards Aquifer Research and Data Center](#) at Texas State University in San Marcos and [LCRA Environmental Laboratory Services](#) in Austin. Another valuable resource for well owners is found at [EPA's webpage for Private Drinking Water Wells](#).

Representatives of the Blanco Pedernales Groundwater Conservation District (BPGCD) have also taken water samples at a dozen local wells. The sampling report provided by BPGCD shows results for testing basic water chemistry and total suspended solids (TSS), but does not include sample data for trace minerals as set forth in EPA drinking water regulations.

According to David Baker of WVWA, "There is no doubt that contamination by carcinogens occurred and that even basic construction of this pipeline in the karst aquifers of the Texas Hill Country is not safe for homeowners reliant on groundwater along the current pipeline route. Kinder Morgan has other options, but the landowners do not have other options for their water supply. This simply should not be allowed to happen."

Patrick Cox of TESPAs echoed the sentiment, adding "Kinder Morgan was given the green light by our regulatory agencies, and that green light needs to become a big red light. It should be clear to all involved that this pipeline project should be stopped until a better route or way forward is found."

Again, according to Baker, "We are calling on all agencies that have some responsibility here – the EPA, TCEQ, Texas Railroad Commission, U.S. Army Corps of Engineers, and the U.S. Fish & Wildlife Service – to stand up for the people and stop this pipeline now. Kinder Morgan violated the public trust of these agencies and the people of the Hill Country. They should not be allowed to continue along this route with this technology. It has failed."

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Attachments

- *Preliminary and limited interpretation of groundwater quality data pursuant to leakage of drilling fluids from a Kinder Morgan construction site*, April 14, 2020 by Raymond Slade, Jr., Certified Professional Hydrologist
- Residential well sampling lab options
- Map of PHP route and discharge area, developed by WVWA
- Photographic images of homeowner's water

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**Preliminary and limited interpretation of groundwater-quality data pursuant to
leakage of drilling fluids from a Kinder Morgan construction site**

On March 28, 2020, Permian Highway Pipeline (PHP) experienced an underground loss of drilling fluid during construction of the Permian Highway Pipeline in Blanco County, Texas. The loss occurred at the location of drilling under the Blanco River. Many pollutants including carcinogens are known to be contained in the drilling fluid despite denial of such by a Kinder Morgan spokesman.

On April 2, personnel from the Wimberley Valley Watershed Association (WVWA) transferred the homeowner's sample reserved on 3/31, when the well had the highest sediment load, at a water well about 0.8 miles northeast of the lost fluid—subsequent data collected by the WVWA are not addressed herein. Additionally, from March 10 through April 3, personnel from the Blanco-Pedernales Groundwater Conservation District (BPGCD) collected 17 samples from 11 wells in the fluid loss area. The above data were obtained from David Baker of the WVWA after laboratory analysis by the Lower Colorado River Authority. The purpose of this report is to present a preliminary and limited interpretation of the water-quality data addressed above.

The WVWA data are limited to 14 selected inorganic chemical constituents (metals). Below is a table presenting the values for the March 31 data and a comparison of the values with those documented by the EPA as being threatening to human health.

Analyses of water-quality data for March 31, 2020 samples from well number 57-62-2AS
See explanations and footnotes after table

Water-quality constituent	Data value (micrograms per liter)	Value for E.P.A. water-quality criteria or primary or secondary drinking water regulations (micrograms per liter) ¹	Ratio of sampled value to value for criteria or regulation ²
Aluminum ³ , total	103,000	50-200	515 to 2060
Arsenic, total	28.5	0.018	1580.
Barium, total	2,360	1,000	2.36
Beryllium, total	17.1	0.004	4275.
Cadmium, total	4.47	0.005	894.
Chromium, total	63.3	0.1	633.
Copper, total	399	1300	0.31
Lead, total	168	.015 ⁴	11,200.
Manganese, total	5,940	50	119.
Nickel, total	188	610	0.31
Selenium ⁵ , total	<50	170	--
Silver, total	<1	100	--
Thallium, total	3.47	0.24	14.5
Zinc, total	287	7400	0.04

Constituents identified in **red** are known carcinogens (Group 1)—those in **orange** are believed to be such (Group 2A or 2B) <https://www.cancer.org/cancer/cancer-causes/general-info/known-and-probable-human-carcinogens.html>. It should be noted that none of the above chemicals are identified as single-exposure threats to human health.

1 <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table> or <https://www.epa.gov/sdwa/drinking-water-regulations-and-contaminants#List>

2 For example a ratio of 2 represents the sampled value to be double the criteria or regulation value. Values exceeding 1 in **red**—such values represent sampled values that exceed criteria or regulation values.

3 Aluminum production

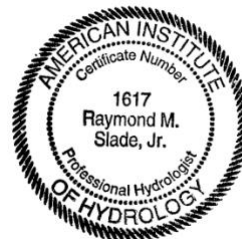
4 Trigger value which instigates additional sampling

5 Selenium as selenium sulfide

Regarding the data collected by the BPGCD, the analyzed water-quality constituents are limited to the following: coliform, pH, alkalinity, conductivity, temperature, calcium, magnesium, hardness, chloride, iron, fluoride, sulfate, nitrate, and phosphorus. The data are not presented here due to the extensive size of the database. Also identified in the database is an indication of “Sediment visible after settling”—“yes” is indicated for 5 of the samples and “no” for 9 samples. However, these data are not necessarily indicative of the presence of pollutants from the drilling fluid loss. For example, depending upon the chemical form of the metals present in the WVWA sample, all or most metals are soluble in water thus could be dissolved in water and not limited to inclusion in sediment. As an example, wells 57-62-1MB and 57-62-2PM are not far apart-- the April 2 sample from each well indicates, based on the water-quality constituents analyzed by the BPGCD, that the wells have nearly identical water quality. However, well 1MB had visible settled sediment while the other well did not.

If water from your well has an unusual odor or contains visible sediment, it is suggested that you contact a water-quality laboratory for how to obtain a sample for analyses. The Lower Colorado River lab in south Austin is an example of a facility that analyzes water quality.

April 14, 2020
Raymond, Slade, Jr.
Certified Professional Hydrologist



Residential Well Sampling Options

Aqua Tech Labs

7500 Hwy 71 W, Ste 105
Austin, TX 78735
(512) 301-9559
www.aqua-techlabs.com/

Bacteriological test:

Cost for this test is \$20 per sample, special sample container required.

Other analyses:

Many analyses available, price list not available. Call for quote.

Edwards Aquifer Research and Data Center Water Quality Lab

Freeman Aquatic Science Building
Texas State University
San Marcos, TX 78666
Phone: (512) 245-2329
www.eardc.txstate.edu/lab-services/analytical.html

Bacteriological test:

Cost for this test is \$20-30 per sample depending on the analysis run. Special sample container required.

Other analyses:

Total Dissolved Solids (TDS), , Alkalinity, Hardness, Calcium, Iron, Magnesium, Manganese, Sodium, Sulfate, Chloride, Fluoride, Nitrogen, nitrate, Total Coliform. See price sheet for full details. Can use a clean gallon water bottle rinsed several times. Call to coordinate sampling and specific instructions.

Turnaround time is generally 24 hrs for bacteria and 10 business days for other analyses.

LCRA Environmental Laboratory Services

3505 Montopolis Drive, EL101
Austin, Texas 78744
(512) 356-6022
<https://els.lcra.org/Images/RWST.pdf>
<https://els.lcra.org/rwst.aspx>

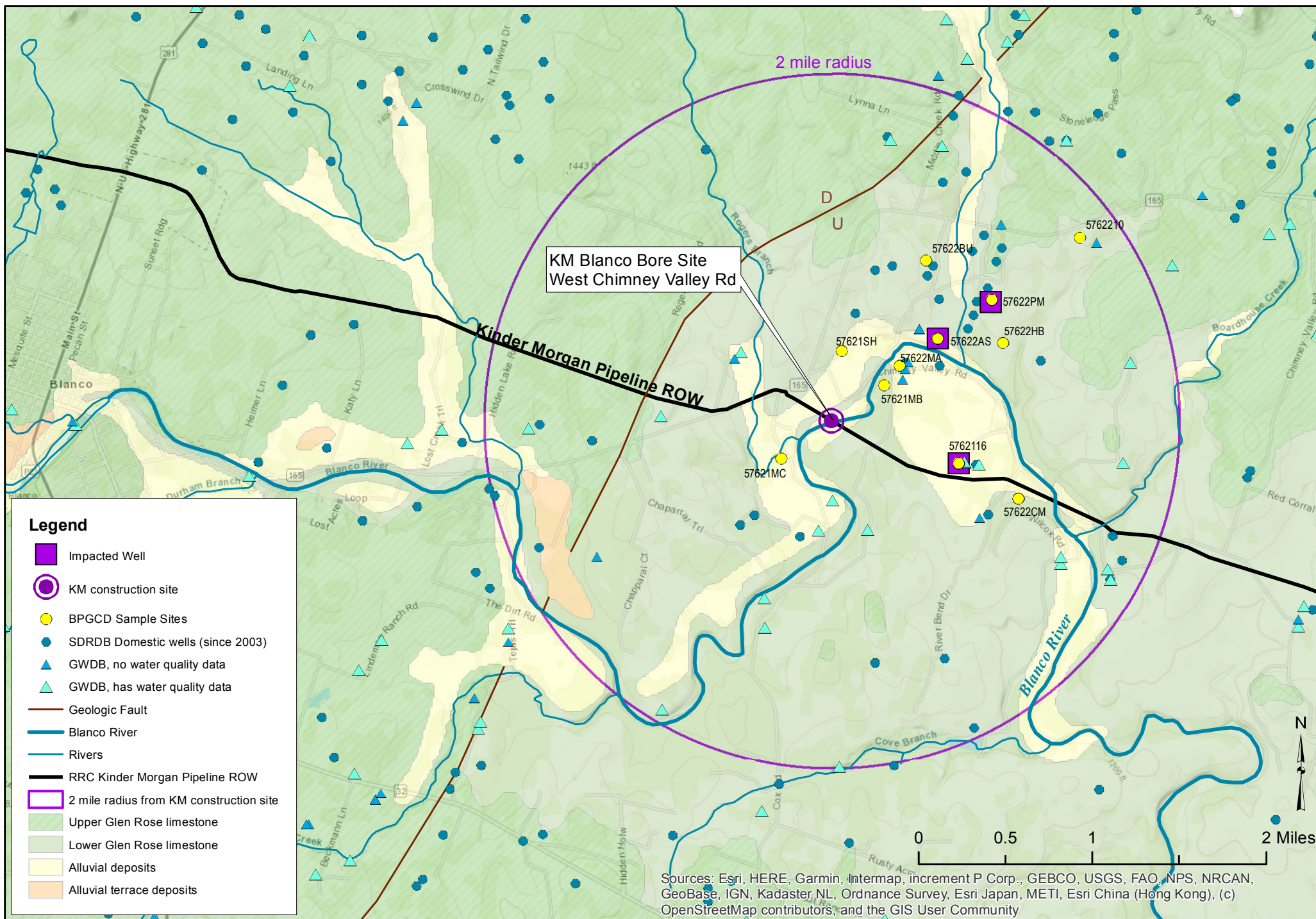
Bacteriological Test:

Cost for this test is \$25 per sample, special sample container required.

Other Analyses:

Nitrate, Nitrite, Lead, Total Dissolved Solids, Total Organic Carbon, Fluoride, Chloride, Iron, Sulfate, Calcium, Magnesium, Hardness.

Turnaround time is generally 7-10 working days, but call to verify. Lab has experienced delays in sampling capabilities and result availabilities.



Basemap: Domestic wells drilled since 2003 from Texas Water Development Board (TWDB) Submitted Drillers Reports database (SDRDB), Water quality sites from TWDB Groundwater database (GWDB) Impacted wells and bore site location estimated from field visits, Surface geology and faults from TNRIS Geologic Atlas of Texas 250k data, Blanco Pedernales GCD (BPGCD) sample site locations provided by BPGCD staff. Rivers from USGS 100k Hydrography, Kinder Morgan Pipeline route from Railroad Commission Pipelines shapefile.
 Map courtesy of Wimberley Valley Watershed Association, 4/15/2020



Photo courtesy of John Brown



Photo courtesy of John Brown