



update on your environment

published by the Arizona Department of Environmental Quality for
the community near the 20th Street and Factor site

April 2001

FS 05-01

Groundwater investigation at the 20th Street and Factor Avenue site

The Arizona Department of Environmental Quality (ADEQ) conducted preliminary investigations at the 20th Street and Factor Avenue site in Yuma and placed the site on the *Water Quality Assurance Revolving Fund (WQARF)** Registry in March 2000. This site is located approximately 1/2 mile south of 16th Street (U.S. Highway 95) and approximately 3/4 mile east of 4th Avenue (Interstate 8 Business Loop). The site boundary is a northwest trending oval extending approximately 1,000 feet from the Houston International (HI) facility located at 655 E.

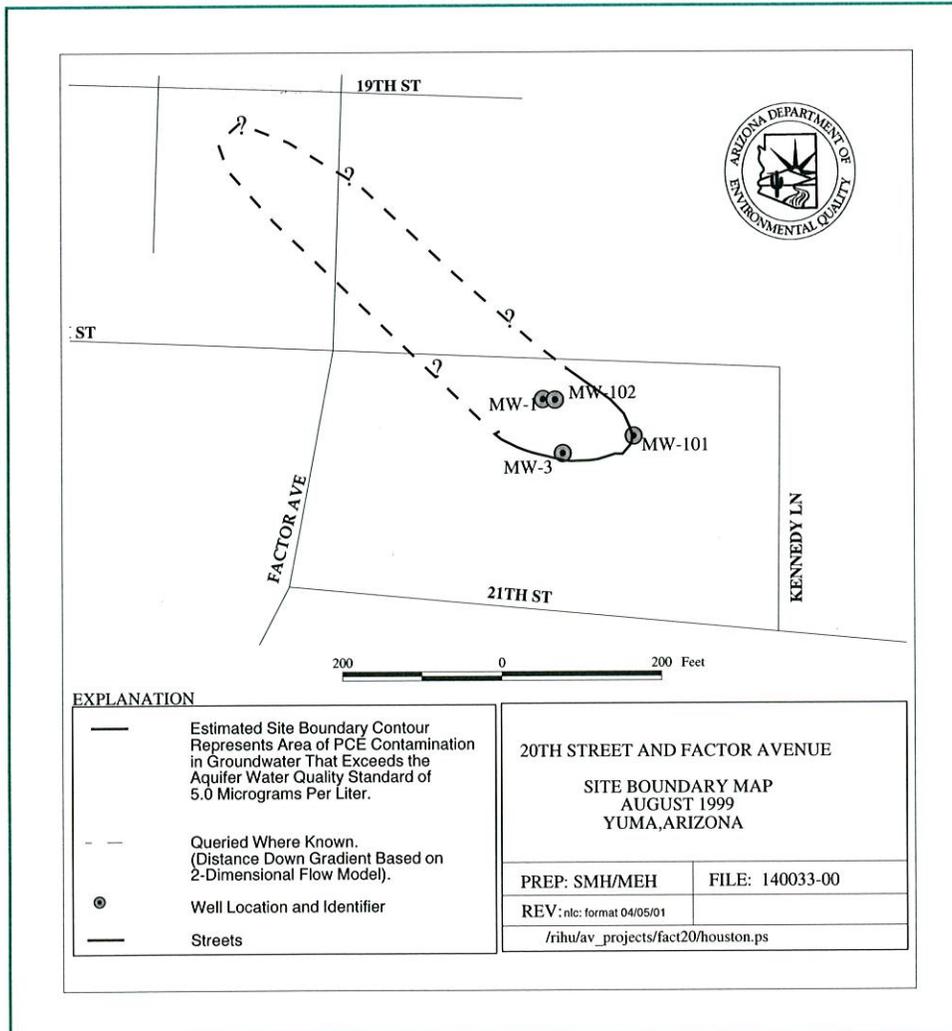
20th Street on the southeast to 14th Street and Rail Avenue on the northwest.

Groundwater at the site is contaminated with *volatile organic compounds (VOCs)*, specifically a solvent called *tetrachloroethene (PCE)*. PCE is a manufactured solvent which was used to clean stainless steel machine parts. HI has operated from the mid-1960s to present. HI's operations have included film processing and manufacturing photographic products. The facility treated their wastewater from the film processing operation to recover silver. PCE is present in the groundwater at levels that exceed the U.S.

Environmental Protection Agency *Maximum Contaminant Level (MCL)* of five micrograms per liter (ug/l).

Groundwater in this area is generally found at 72 feet below the surface and is projected to flow west to west-northwest based on maps of the Yuma area and groundwater level measurements. Investigation and future *cleanup* work at this site will be funded and managed by the WQARF program, which is also known as the state Superfund program.

ADEQ is sending this notice to all addresses within and near the 20th Street and Factor Avenue site to provide information about the ongoing investigation. If you would like to be added to the mailing list to continue to receive information regarding this site, please complete the form included with this notice.



*Italicized terms can be found in the glossary on page three.

What is the history of investigation at the 20th Street and Factor Avenue site?

In 1966, Houston Photo Products (HPP) began operating its motion picture laboratory and manufacturing photographic equipment. In 1998, HPP changed its name to Houston International, Limited. The chemicals, that have been used at the facility include standard photographic chemicals PCE, and small amounts of various other chemicals. The wastewater from film processing and manufacturing photographic products was disposed in various ways onto the property.

Soil and soil vapor investigation were conducted at the HI facility and in the area immediately surrounding from 1990 to 1994. A groundwater monitoring well was installed at the site in 1992. When the well was sampled, PCE and toluene were detected above MCLs. Additional wells were installed and sampled at the site in 1993 and 1996. Sampling of the wells at this time showed detections of PCE, *trichloroethene (TCE)*, benzene, toluene, ethylbenzene and xylenes above MCLs. The groundwater monitoring wells have not been sampled since 1996.

What are the plans for this site?

ADEQ is planning an Early Response Action (ERA) which will focus on the characterization and remedy of contaminated soil and groundwater in the area of the known source.

What are the contaminants at the 20th Street and Factor Avenue site?

Contaminants known to be present in groundwater at levels above regulatory limits at the 20th Street and Factor Avenue include PCE, TCE, toluene, xylenes, ethylbenzene, benzene.

What risks are associated with contamination?

There are risks associated with exposure to PCE and TCE, principally through drinking the contaminated water. People who drink water containing PCE in excess of the MCL over many years could have problems with their liver, kidney or nervous system, and may have an increased risk of getting cancer. People who drink water containing TCE in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer. People who drink water containing

toluene in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver. People who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system or problems with their liver or kidneys. People who drink water containing ethylbenzene in excess of the MCL over many years could experience problems with their liver, kidneys, central nervous system, or eyes. People who drink water containing benzene in excess of the MCL over many years may have an increased risk of getting cancer.

If your water is provided by the city of Yuma, your drinking water is safe and clean, and there is no threat of exposure to this contamination. If you have a private well that has not been tested, and if your well is located within 1/4 mile of the site boundary, please call ADEQ Project Manager Nicki Fatherly at (602) 207-4411 or, toll free in Arizona, (800) 234-5677, Ext. 4411 to have your well tested.

What is the Water Quality Assurance Revolving Fund and the Registry?

The WQARF program was established by Arizona law to conduct statewide surface and groundwater monitoring, study health effects, perform emergency remedial actions and conduct long-term remedial action programs. The WQARF program is funded with state monies, civil and criminal penalties, and funds recovered from parties responsible for contamination.

ADEQ has established a Registry of sites in Arizona where groundwater and/or soil contamination is known to be present. Sites appearing on this Registry qualify for funds available from the State's WQARF for investigation and/or cleanup of contamination. The 20th Street and Factor Avenue site is included on this Registry. Sites on the Registry are given a numeric score based in part upon the type of contaminant(s), present, the location of the contaminant(s), and the number of people that may be affected by the contaminant(s). Scores are used to help determine relative risk at the site and do not necessarily mean that there is a direct risk to humans or the environment. The score of the 20th Street and Factor Avenue site is 31.

For further information on this site or other WQARF

sites, please visit the ADEQ web site at www.adeq.state.az.us. Click on Environmental Programs, then Waste Programs Division, scroll down to Superfund (WQARF/NPL) Programs and follow the prompts for the information you need. A hard copy of the information on the web site is available in the Superfund Programs Section Information Booklet. This document may be purchased by con-

tacting the information desk at (602) 207-2202, or, toll free in Arizona, (800) 234-5677, Ext. 2202.

If you or anyone you know is interested in obtaining more information about the 20th Street and Factor Avenue site, and would like to continue to receive site information mailings, please complete and return the mailing form on page eight.

Glossary

Cleanup – Actions taken that deal with a release or threat of a release of a hazardous substance that could affect people or the environment. The term “cleanup” is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation or corrective action.

Contamination – A hazardous substance released into the environment.

Groundwater – Water found beneath the earth’s surface that fills pores between materials such as sand, clay or gravel. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation and other purposes.

Hazardous Substance – Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

Maximum Contaminant Level (MCL) – A federally designated, enforceable standard set to ensure that water is safe for drinking.

Remediation – Actions taken to deal with the release of a hazardous substance that could affect people or the environment. The term “cleanup” is sometimes used interchangeably with the terms

remedial action, removal action, response action and remedy.

Tetrachloroethene (PCE)

– A clear, colorless, non-flammable solvent that readily evaporates at room temperature. PCE is used for dry cleaning of fabrics and degreasing/drying of metals.



Trichloroethene – A nonflammable, colorless solvent that readily evaporates at room temperature. TCE is used mainly for degreasing/drying of metals and cleaning of fabrics.

Volatile Organic Compounds (VOCs) – A large group of carbon-containing chemicals that readily evaporate at room temperature. Examples of VOCs are isopropyl alcohol (rubbing alcohol), acetone (found in some nail polish removers) and the solvents PCE and TCE, which are used in dry cleaning and metal degreasing.

Water Quality Assurance Revolving Fund (WQARF) – A program administered by ADEQ to conduct statewide surface and groundwater monitoring, study health effects, perform emergency remedial action and conduct long-term remedial action programs. Also known as “state Superfund.”



Actualización en su Medio Ambiente

publicado por el Departamento de
Calidad Ambiental de Arizona para la
comunidad cerca del Calle 20ava y
Avenida Factor sito

Abril 2001

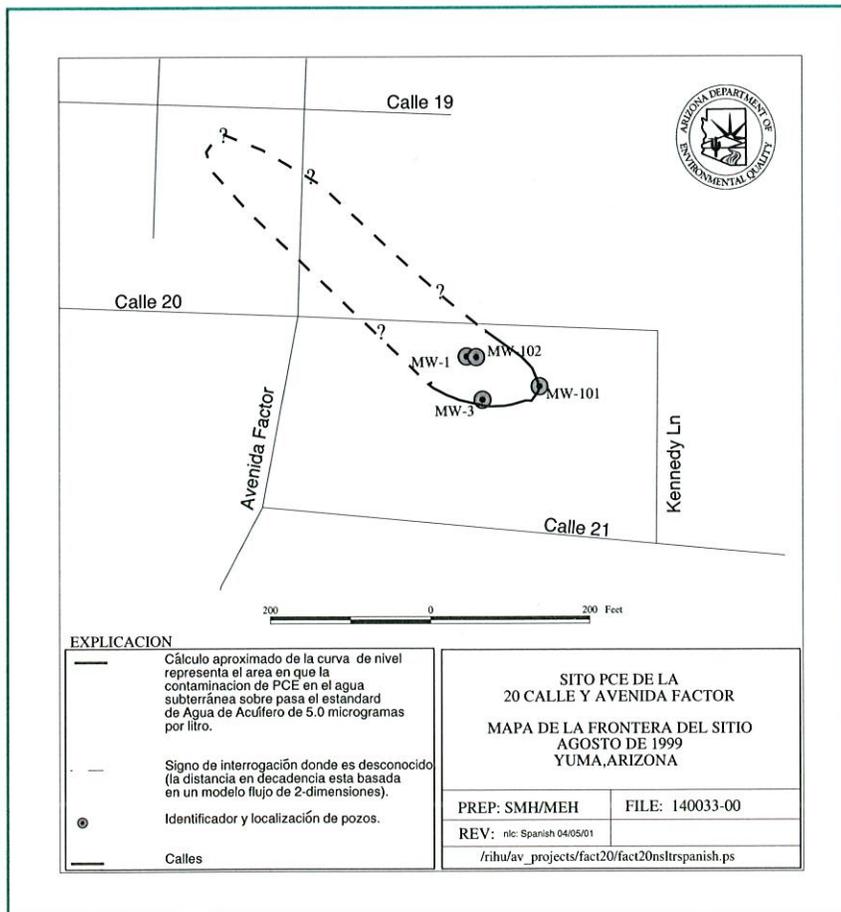
FS 05-01

Investigación del agua subterránea en el sitio de la Calle 20 y Avenida Factor

El Departamento de Calidad Ambiental del Estado de Arizona (ADEQ) realizó investigaciones preliminares en el sitio de la Calle 20 y la Avenida Factor en Yuma y lo puso en el Registro del Fondo Rotativo para Asegurar la Calidad Del Agua (WQARF, por sus siglas en inglés) en Marzo de 2000. Este sitio está localizado aproximadamente fi milla al sur de la Calle 16 (U.S. Highway 95) y aproximadamente 3/4 de milla al este de la Avenida 4 (Periférico Comercial de la Interestatal 8). Los límites del sitio tiene la figura ovalada con tendencia al noroeste extendiéndose aproximadamente 1000 pies desde la planta Houston International (HI) localizada en el número 655 Este Calle 20 por el sureste hasta la

Calle 14 y Avenida Rail por el noroeste.

El agua subterránea en este sitio está contaminada con compuestos volátiles orgánicos (VOCs), específicamente por un solvente llamado tetracloroetileno (PCE). PCE es un solvente de manufactura el cuál se ha usado para limpiar partes mecánicas de acero inoxidable. HI ha estado en operación desde la mitad de los años sesentas hasta la fecha. HI ha incluido entre sus operaciones el procesado de películas y el manufacturado de productos fotográficos. La planta trató sus aguas residuales de la operación del procesado de películas para recuperar plata. PCE está presente en el agua subterránea en niveles que exceden el Nivel Máximo del Contaminante (MCL) de cinco (5) microgramos por litro (ug/l) fijado por la Agencia de Protección Ambiental de los Estados Unidos.



El agua subterránea en esta área se encuentra generalmente a 72 pies por debajo de la superficie y se supone que fluye de oeste a oeste-noroeste en base a mapas del área de Yuma y en mediciones de los niveles del agua subterránea. La investigación del sitio y trabajos de limpieza futuros serán financiados y manejados por el programa WQARF, también conocido como el Programa Superfondo del Estado.

ADEQ está enviando este aviso a todas las direcciones que estén dentro y cerca del área de la Calle 20 y la Avenida Factor para proveer información acerca de la investigación que se está efectuando. Si Usted desea que se le agregue a la lista de correo para continuar recibiendo información respecto a este sitio, por favor llene la forma que se incluye con este aviso.

¿Cuál es la historia de la investigación del sitio de la Calle 20 y la Avenida Factor?

En 1966, Houston Photo Products (HPP) inició operación de su laboratorio de películas y equipo de manufactura fotográfica. En 1988, HPP cambió su nombre a Houston International, Limited. Los productos químicos que se han usado en esta planta incluyen productos químicos fotográficos estándares como el PCE y pequeñas cantidades de otros productos químicos. El agua residual proveniente del procesamiento de las películas y de los productos de manufactura fotográfica fué dispuesta de varias maneras dentro de la propiedad.

Se condujeron investigaciones del suelo y vapores del suelo en la planta HI y en las inmediaciones de la misma desde 1990 hasta 1994. Se instaló un pozo de monitoreo del agua subterránea en el sitio en 1992. Cuando el pozo se muestreó, se detectó PCE y tolueno por arriba de los MCLs. En 1993 y 1996 se instalaron y se muestrearon pozos adicionales en este sitio. El muestreo de los pozos detectó PCE, tricloroetileno (TCE), benceno, tolueno, etilbenceno, y xilenos por arriba de los MCLs. Los pozos de monitoreo del agua subterránea no se han muestreado desde 1996.

¿Cuáles son los planes para este sitio?

ADEQ está planeando una Acción de Respuesta Anticipada (ERA) la cuál se enfocará a la caracterización y remediación del suelo y agua subterránea contaminadas en el área de la fuente conocida de contaminación.

¿Cuáles son los contaminantes en el sitio de la Calle 20ava y la Avenida Factor?

Los contaminantes que se conocen que están presentes en el agua subterránea en niveles por arriba de los límites reglamentarios en el sitio de la Calle 20ava y Avenida Factor incluyen al PCE, TCE, tolueno, xilenos, etilbenceno, y benceno.

¿Cuáles son los riesgos asociados con la contaminación?

Existen riesgos asociados con la exposición al PCE y TCE, principalmente al beber el agua contaminada. Las personas que beben agua conteniendo PCE en exceso del MCL por muchos años pueden tener problemas con su hígado, riñón, ó sistema nervioso, y

pueden tener un riesgo mas elevado de desarrollar cáncer. Las personas que beben agua conteniendo tolueno en exceso del MCL por muchos años pueden tener problemas con su sistema nervioso, riñón ó hígado. Las personas que beben agua conteniendo xilenos en exceso del MCL por muchos años pueden experimentar daños al sistema nervioso o problemas con su hígado ó riñón. Las personas que beben agua conteniendo etilbenceno en exceso del MCL por muchos años pueden experimentar problemas con sus hígados, riñones, sistema nervioso central, u ojos. Las personas que beben agua por muchos años conteniendo benceno en exceso del MCL pueden tener un riesgo avanzado de desarrollar cáncer.

Si la Ciudad de Yuma le provee de agua potable, entonces su agua potable es segura y limpia y no existe ninguna amenaza de estar expuesto a esta contaminación. Si Usted tiene un pozo privado que no haya sido muestreado, y si su pozo está localizado dentro de un cuarto de milla de los límites de este sitio, por favor llame a Nicki Fatherly, Supervisor del Proyecto al (602) 207-4411, ó al teléfono gratis en Arizona al (800) 234-5677, extensión 4411 para que su pozo sea muestreado.

¿Qué son el Programa Rotativo para Asegurar la Calidad del Agua y el Registro?

El programa WQARF fué establecido por la ley de Arizona para conducir monitoreos de agua superficial y subterránea en todo el estado, estudiar efectos a la salud, realizar acciones de remediación de emergencia y conducir programas de acciones de remediación a largo plazo. El programa WQARF está financiado con dinero del estado, multas civiles y criminales, y fondos recuperados de las partes responsables de la contaminación.

ADEQ há establecido un Registro de sitios en Arizona en donde se sabe que la contaminación del agua subterránea y/o la tierra está presente. Los sitios que aparecen en este Registro califican para fondos disponibles del WQARF del Estado para investigación y/o limpieza de la contaminación. El sitio de la Calle 20 y la Avenida Factor está incluido en este Registro. A los sitios en el Registro se les dá una puntuación numérica basada en parte en el tipo del contaminante(s) presentes, la localización de los contaminantes, y del número de personas que pueden ser

afectadas por el(los) contaminante(s). La puntuación se usa para ayudar a determinar el riesgo relativo en el sitio y nó necesariamente significa que existe un riesgo directo a humanos ó al medio ambiente. La puntuación del sitio de la Calle 20 y Avenida Factor es de 31.

Para mayor información acerca de este sitio u otros sitios del WQARF, por favor visite a la página del internet del ADEQ al www.adeq.state.az.us. Seleccione Environmental Programs, después Waste Programs Division, bájese a Superfund (WQARF/NPL) Programs y siga las indicaciones para

la información que Usted necesite. Está disponible una copia en papel de la información de la página de internet en el Folleto de Información de la Sección de Programas de Superfondo (Superfund Programs Section).

Si Usted ó cualquier persona que Usted conozca está interesada en obtener mayor información acerca del sitio de la Calle 20 y la Avenida Factor, y le gustaría continuar recibiendo información del sitio por correo, por favor llene y devuelva la forma anexa.

Glossario

Agua Subterránea – Agua que se encuentra por debajo de la superficie de la tierra que llena los poros entre los materiales como arena, arcilla, ó grava. En acuíferos, el agua subterránea se encuentra en suficientes cantidades que puede ser usada para agua potable, para riego y para otros propósitos.

Compuestos Volátiles Orgánicos (VOCs) – Un grupo grande de productos químicos que contienen carbono que se evaporan fácilmente a temperatura ambiente. Ejemplos de VOCs son el alcohol isopropílico (alcohol para frotado), acetona (que se encuentra en algunos removedores de pinturas de uñas) y los solventes PCE y TCE, los cuáles son usados en las limpiadurías y en el desengrasado de metales.

Contaminación – Una substancia peligrosa que se derrama al medio ambiente

Fondo Rotativo para Asegurar la Calidad del Agua (WQARF) – Un programa administrado por el ADEQ para conducir monitoreos de agua superficial y subterránea en todo el estado, para estudiar efectos a la salud, realizar acciones de remediación de emergencia y conducir programas a largo plazo de acciones remediadoras.

Limpieza – Acciones que se toman para tratar un derrame ó la amenaza de un derrame de una substancia peligrosa que pudiera afectar a las personas ó al medio ambiente. El término “limpieza” se usa

algunas veces en forma intercambiable con los términos acción remediadora, acción removedora, acción responsiva, remedio, remediación ó acción correctiva.

Nivel Máximo del Contaminante (MCL) – Un estándar federal designado que se hace cumplir para asegurar de que el agua sea segura para beber.

Remediación – Acciones tomadas para tratar con un derrame de una substancia peligrosa que puede afectar a la gente ó al medio ambiente. El término “limpieza” se usa a veces en forma intercambiable con los términos de acción remediadora, acción removedora, acción de respuesta ó remedio.

Substancia Peligrosa – Cualquier material que, debido a su cantidad, concentración ó características físicas ó químicas, presenta un peligro potencial para la salud y seguridad humana ó al medio ambiente.

Tetracloroetileno (PCE) – Un solvente claro, incoloro, nó flamable, que fácilmente se evapora a temperatura ambiente. El PCE se usa en las limpiadurías y para el desengrasado/secado de metales.

Tricloroetileno (TCE) – Un solvente incoloro, nó flamable que se evapora fácilmente a temperatura ambiente. El TCE se usa principalmente para el desengrasado/secado de metales y en la limpieza de telas.

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April 2001

20th Street and Factor EPA and ADEQ Mailing List Form
Sitio Superfondo Calle 20ava y Avenida Factor EPA y ADEQ Formulario/Lista para Envíos

I would like to remain on the mailing list/Me gustaría permanecer en la lista de envíos.

You may return this form using the postage paid mailing label on page seven. Please fold and tape (no staples, please) this form before mailing. Thank you for your interest!

Por favor devuelva esta forma usando la etiqueta de correo con franqueo pagado, en la página siete. Favor de doblar y cerrar con cinta adhesiva antes de enviar (sin grapas). ¡Gracias por su interés!

Name/Nombre _____

Address/Dirección _____ City/Ciudad _____ Zip code/CP _____

Mailing address/Dirección de Correos (if different from above/si es diferente a la de arriba) _____

Phone number/Teléfono (home/casa) _____ (work/trabajo) _____

E-mail address/Correo electrónico _____

20th Street and Factor Environmental News



Arizona Department of Environmental Quality

March 2002

The Arizona Department of Environmental Quality (ADEQ) will be conducting an *early response action** (ERA) at the 20th Street and Factor Avenue WQARF site in March 2002. The site is located approximately 1/2 mile south of 16th Street and about 3/4 mile east of 4th Avenue. The boundary is a northwest trending oval extending approximately 1,000 feet from the Houston Fearless facility located at 655 E. 20th St. on the south-east to 14th Street and Rail Avenue on the northwest.

Soil Investigation Completed

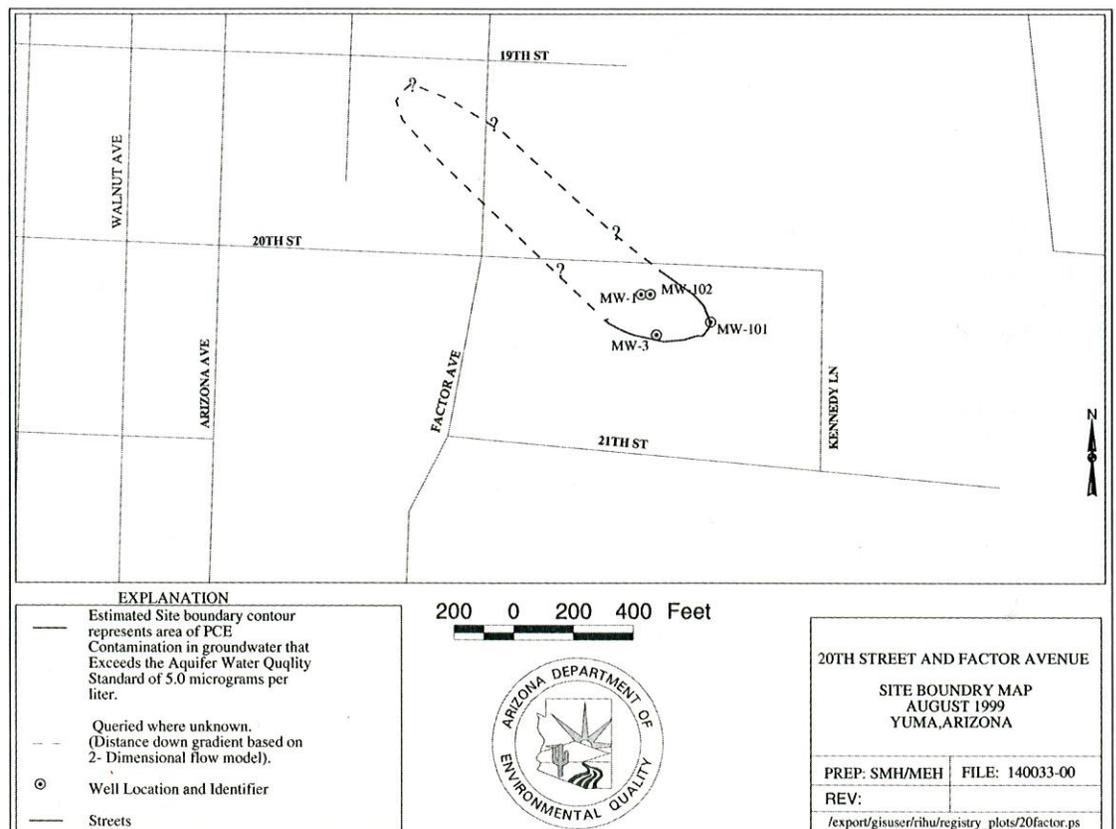
Recent sampling of the soils, wastewater disposal system and groundwater monitoring wells at the site indicate that in addition to *tetrachloroethene* (PCE), *cyanide* is also a contaminant of concern. *Potassium ferricyanide* and *sodium thiocyanate* were used in film development and discharged on the property. Analysis of wastewater in the septic systems indicate cyanide concentrations as high as 20 milligrams per liter (mg/l) are present in the wastewater disposal system and appear to be continuing sources of groundwater contamination. Cyanide is present above the *aquifer water quality standard* of 0.2 mg/l in monitor wells at the site.

Historic aerial photos of the site indicated that three areas on the property received wastewater. In addition, two properties to the east of the site received wastewater from the property. Sampling to characterize the extent of cyanide contamination was completed in October 2001. The highest concentration

of cyanide was detected in the *disposal pond* located on the east side of the property. Overflow from this pond has caused cyanide contamination to extend approximately 175 feet east of the property.

Potassium ferricyanide and sodium thiocyanate will degrade to hydrogen cyanide in sunlight, which, in large amounts, is very harmful to people. Exposure to high levels of cyanide in the air for a short time harms the brain and heart, and may cause coma and death. Exposure to lower levels of cyanide for a long time may result in breathing difficulties, heart pains, vomiting, blood changes, headaches and enlargement of the thyroid gland. People with high blood cyanide levels have also shown harmful effects such as weakness of the fingers and toes, difficulty walking, dimness of vision, deafness and decreased thyroid gland function.

Analysis of soil samples collected from the surface show



evidence of degradation to simpler cyanide compounds. Thus, ADEQ and the Arizona Department of Health Services recommend the surface soil remediation levels for hydrogen cyanide of 11mg/kg for soils adjacent to the site and 35 mg/kg for soils on the site.

Four subsurface gas samples were collected from areas where potassium ferricyanide and thiocyanate were discharged to the ground surface. These samples were analyzed for hydrogen cyanide to determine if the cyanide compounds are degrading in the subsurface at the site. These samples were non-detect for hydrogen cyanide.

Based on these and other sampling results, ADEQ and our contractor, Geo Trans, are planning to *excavate* to a depth of one foot of the surface soils where the cyanide compounds were discharged. The activities at the site will also include the removal of one *sump* and one *septic system* and the cleaning of two other septic systems still in use at the property.

Work at the site will begin mid to late March and may continue for several weeks. Work will take place during evening hours when most of the businesses are closed.

What to Expect During the Early Response Action

Noise Levels – Noise levels will be relatively high, consisting of diesel and gasoline engines and excavation related sounds. Sustained sound pressure levels may be anticipated at approximately 120 decibels. Higher levels may occur periodically. The sounds will essentially be equivalent to moderate road construction noise. There are no residences adjacent to the facility.

Equipment Involved – Machinery involved in the process may include a backhoe tractor, front loader tractor or bobcat tractor, vacuum pump truck, bin haul truck, various passenger vehicles, and gasoline powered generators. Jack hammers or other concrete breaking equipment may also be used to fragment the concrete tank. Drilling rigs will also be used to extract soil samples to determine if contamination is present or classify the types of soil present in the sample.

All site contractor employees entering the contaminated area will be dressed in full body chemical protective suits and connected to supplied air via an air line system. The presence of cyanides in the sludge and waste water in the septic tanks makes this level of protection necessary for the workers in the contaminated area since they have a higher potential for contact with the

waste material. ADEQ does not anticipate *transient exposures* outside of the contaminated area, but will conduct air monitoring outside the area to determine if releases are occurring.

Dust control will be included as a component of the project to limit the amount of airborne particulates generated during the excavation and removal process.

Traffic Delays – Because the work is to be performed within the Houston Fearless property boundaries, traffic delays other than those caused by slow moving vehicles as equipment and haul trucks are mobilized to and from the site are not expected.

Schedule of Events – Excavation work is expected to begin mid to late March 2002. The excavation, waste pumping and tank removal work will last approximately several weeks. Further site investigation work including soil borings, groundwater monitor wells, soil vapor monitor wells, and possibly *soil vapor extraction well* installation will follow immediately after the excavation and removal work. The boring and monitor well/SVE installation is anticipated to last at least an additional two months, depending on the number of borings required to properly characterize the site for *remediation*.

Glossary

Aquifer water quality standard (AWQS) – These are enforceable standards set to protect the quality of the water in aquifers for present and foreseeable uses, including consumption of the water by humans.

Cyanide – Cyanide is a very poisonous chemical usually found joined with other chemicals to form compounds. Examples of simple cyanide compounds are hydrogen cyanide, sodium cyanide and potassium cyanide. Cyanide and hydrogen cyanide are used in electroplating, metallurgy, production of chemicals, photographic development, making plastics, fumigating ships and some mining processes.

Disposal pond – A pond used for final placement or destruction of toxic, radioactive or other wastes, polluted soils, etc.

Early response action – An early response action is a remedial (cleanup) action that is performed prior to the final remedy and often prior to the completion of the remedial investigation because timeliness of response is particularly important to address a current risk to public health or the environment, protect or provide a sup-

ply of water, prevent further release of a contaminant source into the environment, or control or contain contamination where such actions are expected to reduce the scope or cost of the final remedy at the site.

Excavate - To remove soil by scooping or digging out an area using a backhoe tractor.

Potassium ferricyanide - A cyanide compound consisting of cyanide, potassium and iron.

Remediation - Actions taken to deal with the release of a hazardous substance that could affect people or the environment. The term "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action and remedy.

Septic system - A system in which a continuous flow of sewage is decomposed by bacteria.

Sump - An area, usually low land or structure, created to receive drainage.

Sodium thiocyanate - A cyanide compound consisting of cyanide, sodium and sulfur.

Soil remediation level (SRL) - SRLs are risk-based standards for contaminants in soil that were developed by the Arizona Department of Health Services. SRLs

are protective of human health, including sensitive groups, over a lifetime. The SRLs can be found in Arizona Administrative Code (AAC) R18-7-201 et seq.

Soil vapor extraction well (SVE) - SVE is a commonly used technique for cleaning up contaminated soils. Soil vapor extraction draws gases from the contaminated soils and through the extraction system where they are treated or discharged into the air. Whether or not the extracted gas is treated prior to being discharged into the air depend on the amount and type of contamination present. The term soil vapor extraction is often used interchangeably with soil gas extraction.

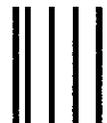
Tetrachloroethene (PCE) - A clear, colorless, non-flammable solvent that readily evaporates at room temperature. PCE is used for dry cleaning of fabrics and degreasing/drying of metals.

Transient exposures - Temporary exposure to dust particles that may be caused by excavation.

If you have questions or would like more information on the 20th Street and Factor Avenue WQARF Site please contact Community Involvement Coordinator Stacy Duffy or Project Manager Scott Goodwin at (800) 234-5677, Ext. 2265 or Ext. 4452.

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20th Street and Factor Avenue WQARF Site Mailing List Request Form

Please complete this form if you would like to be added to the 20th Street and Factor Avenue WQARF Site mailing list. You may return this form using the postage paid mailing label on the opposite side of this page. Please cut along the dotted lines before mailing. Thank you for your interest!

Name _____

Address _____ City _____ Zip code _____

Mailing address (if different from above)

Optional Information

Phone number (home) _____ (work) _____ Fax _____

E-mail address _____

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20th Street and Factor Water Quality Assurance Revolving Fund Site - November 2012

This fact sheet is a publication of the Arizona Department of Environmental Quality (ADEQ) to inform community members near the 20th Street and Factor Water Quality Assurance Revolving Fund (WQARF) site of current site activities in Yuma County.

If you receive your drinking water from the City of Yuma, your current drinking water is not affected by the groundwater contamination at the site.

A glossary of terms is located at the end of this fact sheet.

SITE HISTORY AND INVESTIGATION

The 20th and Factor WQARF site is located in the eastern portion of the City of Yuma, Arizona, and is generally bounded to the north by 17th Street, to the south by 21st Street, to the west by 4th Avenue, and to the east by Kennedy Lane (Figure 1, page 4). The site consists of the Houston International facility, and the area of groundwater contamination northwest of the facility. The site is located in an urban setting that includes a mixture of commercial businesses, light industrial, warehouses, and residential neighborhoods.

The property was undeveloped land prior to early 1965. From 1966 to 1995, the property was occupied by Houston Photo Products, Inc. (aka Houston International, Ltd. and Houston Fearless 76, Inc.), a film processing operation and manufacture of film-processing machines. Wastewater resulting from film development and/or processes associated with film-processing machine manufacturing was discharged directly and/or indirectly to the ground via five wastewater disposal systems. Chemicals of concern (COC) contained in the wastewater included the volatile organic compounds (VOCs) tetrachloroethene (PCE), and trichloroethene (TCE) as well as cyanide compounds.

In 1993, the Houston International facility and the ADEQ Hazardous Waste Section entered into a compliance order. The facility conducted additional soil and groundwater investigations under the compliance order. Also in 1993, Houston International moved its motion picture laboratory operation off-site. The facility is currently occupied

by the offices of Houston Film Labs, a warehouse and rented business space. These operations do not generate wastewater.

The site was placed on the WQARF registry in March 2000. In 2001, ADEQ completed the characterization of cyanide-contaminated soils at the facility. In 2002, ADEQ completed an Early Response Action (ERA) which included excavation and disposal of the upper foot of cyanide-contaminated surface soils. Approximately 1,700 tons of contaminated soils were removed from the facility. A one-foot cap of aggregate base coarse material was placed over the remaining cyanide-contaminated soils. This cap helps prevent direct exposure to the underlying contaminated soils remaining at the site. The ERA also included the removal of two unused sumps and the cleaning of three active septic systems at the facility. Approximately 15,000 gallons of PCE and cyanide-contaminated wastewater and sludge were removed from the disposal system during cleaning operations. The removal of this source material addressed a continuing source of groundwater contamination.

Since the removal, ADEQ has continued to characterize the site gathering soil, soil gas, groundwater and indoor and ambient air samples.

Groundwater in this area is generally found at depths ranging from 75 feet to 80 feet below the ground surface. Based on historic and recent data collected from the site, groundwater flow is to the northwest.

WHAT ARE THE HEALTH RISKS ASSOCIATED WITH THIS CONTAMINATION?

There are no known drinking water production wells within the boundaries of the site. The drinking water supplied by the City of Yuma meets all federal and state drinking water standards.

People who drink water containing PCE, TCE, or cyanide in excess of the regulatory levels over many years could experience problems with their liver and may have an increased risk of cancer. The contaminated groundwater in this area is not used for drinking water. The listing of the site on the WQARF Registry does not necessarily represent a

determination that the release of a hazardous substance at the site poses a threat to human health or the environment.

In 2005 and 2006, ADEQ conducted soil vapor intrusion modeling and an indoor air risk assessment evaluation to assess potential health risks to employees and visitors to the facility. This incremental risk was within ADEQ's acceptable cumulative excess cancer risk.

WHAT ARE ADEQ'S FUTURE PLANS AT THIS SITE?

ADEQ's current plans for the site are to begin the remedial investigation (RI) phase of the project. Most, if not all, of the site characterization work is completed at the site. ADEQ will consolidate all the existing site characterization data, combined with a study of land and water uses in the area, into an RI Report. The site will then proceed through a feasibility study (FS) that will analyze potential cleanup methods for achieving the cleanup goals determined during the RI.

WHAT ARE THE CONTAMINANTS AT THIS SITE?

Groundwater at the site is contaminated with PCE, TCE and cyanide. PCE is a man-made solvent which was used to clean machine parts at the facility. PCE is present in the groundwater at levels that exceed the Arizona Aquifer Water Quality Standards (AWQS) of 5 micrograms per liter ($\mu\text{g/L}$). TCE is a breakdown product of PCE, and is also present at the site in groundwater at levels exceeding the AWQS of 5 $\mu\text{g/L}$. Cyanide is a chemical that was used at the facility as part of the film processing. Cyanide is also present in groundwater at levels that exceed the AWQS of 0.2 milligrams per liter (mg/L) for free or amenable cyanide.

PUBLIC INVOLVEMENT

ADEQ will keep the public informed through fact sheets and public meetings. ADEQ is assembling a mailing list and Community Advisory Board (CAB) to advise ADEQ and the public of issues and concerns related to investigations and remediation of the site. The purpose of the CAB will be to:

- provide comments to ADEQ on the remedial investigation report, and other cleanup and investigation issues related to this site;
- represent a diversified cross-section of the community in and around the site;
- participate in outreach to the community;
- make site visits if desired.

CAB MEMBERS NEEDED

ADEQ is currently looking for members of the public to serve on the CAB.

- Are you concerned about the environment and protecting public health?
- Do you live, work, own property or a business in the area of the site and/or are you interested in the site?
- Do you have a minimum of two hours a day for four times a year to volunteer?

If you answered yes to any of the questions and would like to apply to be a member of the CAB, please fill out and complete the enclosed application. For more information on community involvement activities at the site please call Delfina Olivarez, ADEQ Community Involvement Coordinator at (602) 771-4710 or 1-800-234-5677 Ext. 771-4710.

Scope of Work, Outline of Community Involvement Plan, and Fact Sheet

Availability Notice Pursuant to A.R.S. §49-287.03 (c) (d), ADEQ is announcing the availability of the scope of work, outline of a community involvement plan and fact sheet. A public meeting may be called to address any comments. To obtain copies, contact Delfina Olivarez at (602) 771-4710.

INFORMATION REPOSITORY

Within 24-hour notice, an appointment to review related documentation is available Monday through Friday from 8:30 a.m. to 4:30 p.m. at ADEQ Records Management Center, 1110 West Washington Street, Phoenix, Arizona. Please contact (602) 771-4389 to schedule an appointment to review these documents.

WHAT IS WQARF AND THE REGISTRY?

The WQARF Program was established by Arizona law to:

- 1) conduct statewide surface and groundwater monitoring
- 2) study health effects
- 3) perform emergency remedial actions
- 4) conduct long-term remedial action programs

ADEQ established the WQARF Registry to include sites in Arizona where groundwater and/or soil contamination is present. Sites appearing on the WQARF Registry are managed by the WQARF Program for investigation and/or cleanup of contamination. Listing of the site on the WQARF Registry was due in part to the presence of PCE, TCE, and cyanide in the groundwater beneath the site.

ADEQ CONTACTS

Scott Goodwin
ADEQ Project Manager
(602) 771- 4452 or toll free at (800) 234- 5677
Ext. 771-4452.
E-mail: sdg@azdeq.gov

Delfina Olivarez
ADEQ Community Involvement Coordinator
(602) 771- 4710 or toll free at (800) 234- 5677
Ext. 771-4710.
E-mail: dco@azdeq.gov

Hearing impaired persons may call ADEQ's TDD line at (602) 771-4829.

For further information on this site or other WQARF sites, please visit the ADEQ Web site at: <http://www.azdeq.gov>. Click on Waste Programs, then click on Superfund/WQARF programs. Follow the links to get to the information that you need.

Para información en español sobre este sitio, comuníquese con Cecilia Montiel al (602) 771-4151.

GLOSSARY

Aquifer Water Quality Standard (AWQS) - These are standards set to protect the quality of the water in aquifers for present and foreseeable uses, including consumption of the water by humans.

Cleanup – Actions taken that deal with a release or threats of a release of a hazardous substance that could affect people or the environment. The term “cleanup” is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation, or corrective action.

Contamination - Any hazardous substance released into the environment.

Cyanide – Cyanide is a very poisonous chemical usually found joined with other chemicals to form compounds. Examples of simple cyanide compounds are hydrogen cyanide, sodium cyanide, and potassium cyanide. Cyanide and hydrogen cyanide are used in electroplating, metallurgy, production of chemicals, photographic development, making plastics, fumigating ships, and some mining processes.

Early Response Action (ERA) - Refers to a remedial action performed prior to the final remedy, and often prior to the remedial investigation. An ERA addresses current risks to public health, welfare, and the environment; protects or provides a supply of water; addresses sources of contamination; or controls or contains contamination where such actions are expected to reduce the scope or cost of the remedy needed at the site.

Feasibility Study (FS) - A process to identify a reference remedy and alternative remedies that appear to be capable of achieving the remedial objectives for the site. It is often done as part of a two-phase investigation in conjunction with a remedial investigation (RI/FS).

Groundwater - Water found beneath the earth's surface that fills pores between materials such as sand, clay, or gravel. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation, and other purposes.

Remediation – Actions taken to deal with the release of a hazardous substance that could affect people or the environment. Also see the term “cleanup”.

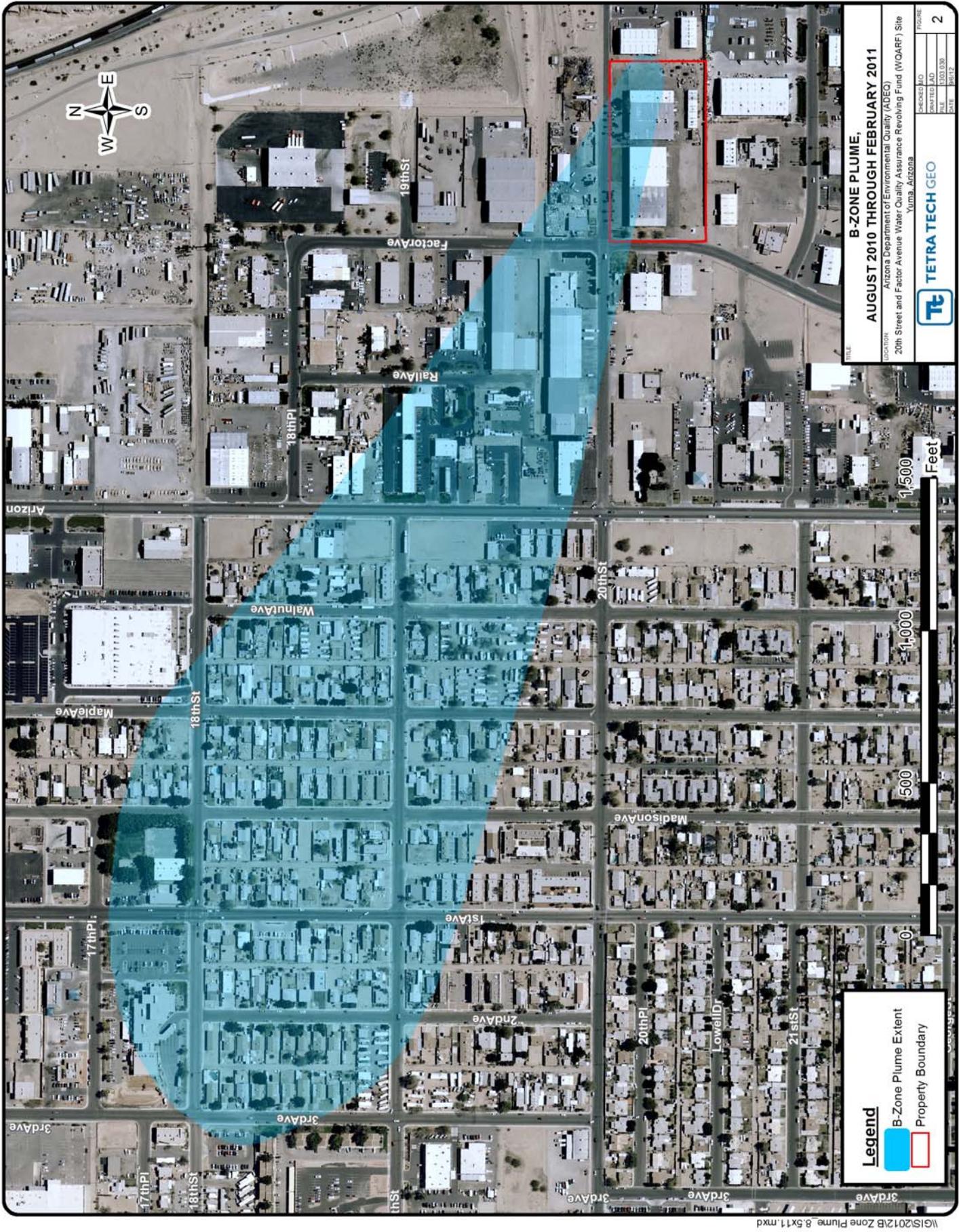
Soil Vapor (Soil Gas) - Gaseous elements and compounds that occur in the small spaces between soil particles. Such gases can move through or leave the soil depending on changes in concentrations or pressure.

Tetrachloroethene (PCE) - A clear, colorless, nonflammable solvent that readily evaporates at room temperature. PCE is widely used for dry cleaning of fabrics and degreasing/drying of metals.

Trichloroethene (TCE) - TCE is a nonflammable, colorless solvent that readily evaporates at room temperature. TCE is used mainly for degreasing/drying of metals and cleaning of fabrics.

Volatile organic compounds (VOCs) – A large group of carbon-containing chemicals that readily evaporate at room temperature. Examples of VOCs are isopropyl alcohol (rubbing alcohol), acetone (found in some nail polish removers), and the solvents PCE and trichloroethylene (TCE) (used in dry cleaning and metal degreasing).

Water Quality Assurance Revolving Fund (WQARF) - A program administered by ADEQ to (1) conduct statewide surface and groundwater monitoring; (2) study health effects; (3) perform emergency remedial actions; and (4) conduct long-term remedial action programs. Also known as “State Superfund Program.”



\\GIS2012\B Zone Plume_8.5x11.mxd

Figure 1



Water Quality Assurance Revolving Fund Mailing List Form and Community Advisory Board (CAB) Membership Application

Fondo Rotativo para la Garantía de la Calidad del Agua Formulario para la Lista de Correo y Solicitud para Membresía en el Consejo Comunitario de Consulta

Any ADEQ translation or communication in a language other than English is unofficial and not binding on the State of Arizona. Cualquier traducción o comunicado de ADEQ en un idioma diferente al inglés no es oficial y no sujetará al Estado de Arizona a ninguna obligación jurídica.

Site Name (Nombre del Sitio): _____

If you would like to be added to the site mailing list, please fill out the top portion of this form and return it to ADEQ. If you would like to apply to serve on the CAB, please also complete the bottom portion of this form. (Si usted quisiera estar en la lista de correo para el sitio, favor de llenar la parte de arriba de este formulario y devolverlo a ADEQ. Si usted quisiera entregar una solicitud para servir en el CAB, favor de también completar la parte abajo de este formulario.)

First Name: _____ Last Name: _____
(Nombre) (Apellido)

Organization / Association: _____
(Organización / Asociación)

Address: _____
(Dirección)

City: _____ Zip code: _____
(Ciudad) (Código Postal)

Mailing address: (if different from above) Dirección de Correo: (si es diferente de la anterior) _____
City: _____
(Ciudad)

Zip code: _____ Email address: _____
(Código Postal) (Correo Electrónico)

Occupation: _____ Employer: _____
(Ocupación) (Empleador)

Phone numbers: (home:) _____ (work:) _____
(Números de Teléfono): (domicilio) (trabajo:)
(cell:) _____ (other:) _____
(celular) (otro)

Application for CAB Membership (Solicitud para Membresía en el CAB)

How long have you lived in or near the Site? _____
(¿Por cuánto tiempo ha vivido usted en o cerca del Sitio?)

Are you willing to make a commitment to serve on the CAB for at least 1 year? _____
(¿Está usted dispuesto(a) a comprometerse a servir en el CAB por lo menos un año?)

Are you able to attend at least four meetings a year? _____
(¿Puede asistir por lo menos a cuatro reuniones por año?)

What day(s) / time(s) would be best for you to attend meetings? _____
(¿Cuáles día(s)/hora(s) serían las mejores para que usted pudiera asistir a las reuniones?)

Please explain why you would like to serve on the CAB (attach a separate sheet if needed):
(Por favor explique por qué quisiera participar en el CAB) (adjunte otra hoja, si es necesario)

Return this application to (Devuelva esta solicitud a):
ADEQ, Outreach Unit, 1110 West Washington, Phoenix, AZ 85007 or fax to (602) 771-4138.
For more information, visit ADEQ's Web site at: www.azdeq.gov or contact Delfina Olivarez at (602) 771-4710.
Para más información, favor de visitar la página del Internet de ADEQ al www.azdeq.gov ó llame a Juana Bonilla, al (602) 771-4189.

After completion please fold and tape this form before mailing (no staples). Thank you for your interest. Después de llenar la solicitud, por favor de doblarla y sellarla (no grapas) antes de enviarla. Gracias por su interés.

FROM:



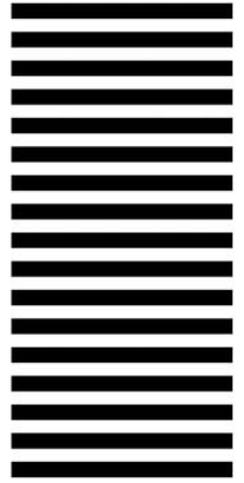
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PHOENIX, AZ 85007-9973



Community Advisory Board Members Needed!



NOTICE OF WELL DRILLING NOTICIA DE LA PERFORACIÓN DE POZOS

Beginning (Comenzando) 2/25/2013

Drilling of groundwater monitor wells will be taking place at three locations. The locations are: 17th street just east of 3rd Avenue; on 19th Street, just east of 4th avenue; and on 5th avenue between 17th Street and 18th Street. The wells will be drilled in the order listed above.

Work will occur from approximately **7:00 a.m. to 6:00 p.m. on weekdays, and starting at 8:00 a.m. on weekends. Drilling is scheduled to begin February 25, 2013.** The drilling activities are expected to last approximately five to six weeks.

Traffic may be restricted around the work site. Area utilities will not be interrupted. Noise will be created by the drilling and air compressors, and there will also be mechanical noises from the equipment. ADEQ will take measures to ensure that dust is controlled during this work.

The drill site will be secured after hours. The covers for the completed wells will be flush with the ground. After the wells are installed, they will be sampled periodically by ADEQ.

The wells are being installed to assess groundwater conditions and to monitor for contaminants in the area, as part of the site investigation of the 20th Street and Factor Avenue Water Quality Assurance Revolving Fund (WQARF) Site. WQARF is the State of Arizona Superfund program that investigates and cleans up areas with groundwater or soil contamination. **No one is known to be drinking contaminated water, and there will be no risk to individuals from materials excavated during the drilling.**

La perforación de pozos de monitoreo de aguas subterráneas se llevará a cabo en tres lugares. las locaciones: calle 17, justo al este de la 3 avenida; en la calle 19, justo al este de la 4 avenida; y en la 5 avenida entre calle 17 y calle 18. Los pozos se perforarán en el orden indicado anteriormente.

El trabajo tomará lugar de aproximadamente **las 7:00 de la mañana a las 6:00 de la tarde en los días de semana, y comenzando a las 8:00 de la mañana en los fines de semana. Perforación está programada para comenzar 25 de febrero 2013.** Las actividades de perforación deben durar por aproximadamente cinco a seis semanas.

El tráfico podrá estar limitado cerca del sitio del trabajo. No se interrumpirán las utilidades en el área. Habrá ruido creado por la perforación y las máquinas que comprimen el aire, junto con ruidos mecánicos del equipo. ADEQ tomará medidas para asegurar que el polvo esté controlado durante este trabajo. Se asegurará el sitio de perforación después de hora. Las tapas para los pozos completados serán alineadas con el suelo. Después de que los pozos estén instalados, ADEQ tomará muestras periódicamente.

Se instalan los pozos para evaluar las condiciones del agua subterránea, y para monitorear por contaminantes en el área, como parte de la investigación del Sitio de la Calle 20 y la Avenida Factor del Fondo Rotativo para la Garantía de la Calidad del Agua (WQARF, por sus siglas en inglés). WQARF es el programa del Estado de Arizona en que áreas con contaminación del agua subterránea o suelo están investigadas y limpiadas. **No se sabe de nadie que esté bebiendo agua contaminada, y no habrá ningún riesgo a individuos de los materiales excavados durante la perforación.**

For more information, please call ADEQ's Office in Phoenix.
Monday - Friday, 8:00 a.m. to 5:00 p.m.:

**Scott Goodwin, ADEQ Project Manager at 1-800-234-5677 extension 771-4452 or (602) 771-4452.
Delfina Olivarez, ADEQ Community Involvement Coordinator at 1-800-234-5677 extension 771-4710 or
(602) 771-4710**

*Para más información, favor de llamar la Oficina ADEQ en Phoenix,
el lunes al viernes, de las 8:00 de la mañana a las 5:00 de la tarde:*

**Scott Goodwin, Directora del Proyecto para ADEQ al 1-800 234-5677 extension 771-4452 or 602-771-4452
Delfina Olivarez, Coordinadora de Participación Comunitaria para ADEQ al at 1-800 234-5677 extension
extension 771-4710 or 771-4710 or (602) 771-4710**

