REDACTED VERSION

PRELIMINARY ASSESSMENT

Kermit PWS
Kermit, Winkler County, Texas
EPA ID Pending

REGION 6

Prepared in cooperation with the
U.S. Environmental Protection Agency

February 2014

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PRELIMINARY ASSESSMENT

Kermit PWS
110 S. Tornillo Street
Kermit, Winkler County, Texas
EPA ID Pending

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1 INTRODUCTION

The Texas Commission on Environmental Quality (TCEQ) was tasked by the United States Environmental Protection Agency (EPA) Region 6 to conduct a Preliminary Assessment (PA) at the Kermit Public Water Supply (PWS) site in Kermit, Winkler County, Texas. The specific goals for the PA are:

- Determine the potential threat to public health or the environment posed by the site;
- Determine the potential for a release of hazardous constituents into the environment; and
- Determine the potential for placement of the site on the National Priorities List (Ref. 1).

Completion of the PA was consistent with EPA guidance for performing preliminary assessments under CERCLA and included reviewing existing site information, collecting receptor information within the range of site influence, determining regional geology, groundwater, surface water, determining surrounding population characteristics, and conducting on- and off-site reconnaissance. This document includes a discussion of background site information (Section 2), a discussion of migration/exposure pathways and potential receptors (Section 3), and a list of pertinent references (Section 4) (Ref. 1; Ref. 2; Ref. 3).

2 SITE INFORMATION

2.1 SITE LOCATION

Site Name:	Kermit PWS
CERCLIS ID No.:	Pending
Location:	Kermit, Winkler County, Texas
Latitude:	31.855679°
Longitude:	-103.097335°
Congressional District:	Texas' 23rd Congressional District

2.2 SITE DESCRIPTION

The site is a contaminated groundwater plume of tetrachloroethylene (PCE) and trichloroethylene (TCE) with an unknown source located in Kermit, Texas (Figure 1). Since 1999, PCE and TCE have been detected in 11 water wells in Kermit, including eight Kermit Public Water Supply (PWS) wells (PWS ID #2480001), one Kermit Independent School District (Kermit ISD) well, and two private water wells. Five of the wells, including all three of the wells containing TCE, are located in the south/southwest portion of the city (Figure 1). The other six wells are located approximately in the center of the city. The site may consist of multiple potentially commingled plumes.

The Kermit PWS provides water to the city of Kermit, which has a population of approximately 5,708 people (Ref. 5, p. 1). Four private wells and three wells owned by the Kermit ISD have also been identified within the city; these wells are not used for drinking purposes, but at least one of the private wells is used to fill a swimming pool (Ref. 6, pp. 7-19). All of the water wells withdraw from the Santa Rosa aquifer, which flows from the northeast to the southwest (Ref. 6, p. 1). The city is mixed residential and commercial, but the land directly surrounding the city in each direction is mainly industrial (oil fields) with some agricultural areas (Figure 1; Ref. 4).

2.3 OWNERSHIP HISTORY

Nine of the 11 affected wells (GW-01, GW-09, GW-10, GW-11, GW-12, GW-17, GW-18, GW-19, and GW-22) are owned by the Kermit PWS (Figure 1). Well GW-14 is owned by the Kermit ISD and is located on the Kermit High School Property. Well GW-26 is a private well owned by Abel Quiroz, located at 223 B. West Highway 302.

2.4 OPERATIONS AND WASTE CHARACTERISTICS

The City of Kermit PWS has operated from 1938 to the present day (Ref. 8, p. 4). 6, p. 7). The PWS sources water from eight active wells via two treated points of entry (four wells each): the Underwood Pump House (EP001), and the Walton Pump House (EP002) (Ref. 5, p. 1; Ref. 8, pp. 5, 7). Most of the PWS wells were drilled between 1929 and 1957; three more were drilled between 1997 and 2000 (Ref. 30, p. 3). Current production of the PWS ranges between 1.8 and 3.0 million gallons per day (Ref. Each PWS well within the city is surrounded by a barbed-wire, chain-link fence secured by a padlock. The doors to the two pumphouses are also locked. The PWS operates in compliance with TCEQ regulations and has no violations on record (Ref. 25, pp. 1-2).

PCE is a colorless organic liquid with a mild, chloroform-like odor. Its greatest use is in the textile industry, and as a component of aerosol dry-cleaning products. Major releases of PCE to air and water are from dry cleaning and industrial metal cleaning or finishing. Water pollution can occur from PCE leaching from vinyl liners in some types of pipelines used for water distribution, and during chlorination water treatment. According to the EPA Toxic Chemical Release Inventory, PCE releases to land and water between 1987 and 1993 totaled over 1 million pounds. These releases were primarily from alkali and chlorine industries which use it to make other chemicals (Ref. 23, pp. 1-2).

TCE is a colorless or blue liquid with a chloroform-like odor. TCE is primarily used to remove grease from fabricated metal parts and in the production of some textiles.

Wastewater from metal finishing, paint and ink formulation, electrical components, and rubber processing industries may also contain TCE (Ref. 24, pp. 1-2).

2.5 PREVIOUS INVESTIGATIONS

Between 1999 and 2001, routine groundwater samples collected from EP001 by the TCEQ Public Drinking Water section contained TCE, PCE, and dibromochloromethane (Ref. 8, p. 6). Samples collected from EP002 on May 2, 2000 and December 18, 2000 also contained PCE and dibromochloromethane (Ref. 8, p. 6). A Pre-CERCLIS Screening Checklist completed for the PWS in December 2002 ranked the site as a high potential hazard; however, no potential sources were identified and there was no evidence of hazardous substances being disposed, stored, or treated at the City of Kermit Public Water Supply Corporation (Ref. 8, pp. 5, 7).

Since 2004, TCE was detected in annual groundwater samples collected from EP001, with the highest concentration (1.2 μg/L) observed in September 2012 (Ref. 26, pp. 1-2). PCE was detected in annual samples collected from EP002 since 2006, with the highest concentration (2.9 μg/L) detected in September 2009 (Ref. 27, pp. 1-2). Samples collected from EP001 in 2011 and 2012 did not contain PCE (Ref. 27, p. 1).

The TCEQ conducted a Superfund Site Discovery and Assessment Program (SSDAP) State Screening at the site in June 2013. The TCEQ collected groundwater samples from 18 wells, including 11 Kermit PWS wells, four private wells, and three Kermit ISD irrigation wells and analyzed the samples for VOCs. PCE was detected in six PWS wells (Table 1). Concentrations of PCE exceeded the maximum contaminant level (MCL) in PWS well samples GW-09 and GW-10 (Figure 1; Ref. 31, p. 8). However, both of these wells are inactive. TCE was detected in PWS well samples GW-17, GW-18, and GW-19. Concentrations of TCE exceeded the SCDM benchmark in PWS well samples GW-17 and GW-18 (Ref. 31, p. 8). PCE was detected above the MCL in one of the Kermit ISD wells (GW-14), which is not used for drinking water, and in one private well (GW-26), which is a sole-source well (Ref. 31, p. 8; Ref. 6, p. 13). Because the farthest distance between

the wells where contaminants were detected (GW-14 and GW-17) is 1.20 miles, the detections may represent multiple groundwater plumes.

Table 1. June 2013 SSDAP State Screening Sample Results

Sample ID	Sample Location	PCE (µg/L)	TCE (µg/L)
GW-01	Kermit PWS Well (G2480001L) (Walton Pump)	2.54	U
GW-07	Private Well	U	U
GW-09	Kermit PWS Well (G2480001M) (inactive; Walton Pump)	23.3	U
GW-10	Kermit PWS Well (G2480001F) (inactive)	5.77	U
GW-11	Kermit PWS Well (G2480001I) (Walton Pump)	3.24	U
GW-12	Kermit PWS Well (G2480001J) (Walton Pump)	1.52	U
GW-13	Kermit PWS Well (G2480001G) (Walton Pump)	U	U
GW-14	Kermit ISD Well 1	0.429	U
GW-16	Private Well	U	U
GW-17	Kermit PWS Well (G2480001H) (Underwood Pump)	U	1.39
GW-18	Kermit PWS Well (G2480001B) (Underwood Pump)	U	1.46
GW-19	Kermit PWS Well (G2480001A) (Underwood Pump)	U	0.74
GW-20	Kermit PWS Well (G2480001E) (Underwood Pump)	U	U
GW-22	Kermit PWS Well (G2480001N/O) (Walton Pump)	0.39	U
GW-25	Private Well	U	U
GW-26	Private Well	0.797	U
GW-27	Kermit ISD Well 2	U	U
GW-28	Kermit ISD Well 3	U	U

(Ref. 31, p. 8)
U: not detected above quantitation limit

2.6 SOURCES

Potential sources associated with the site include two dry cleaning facilities in Kermit, Texas.

2.6.1 Source 1: K&O Classic Cleaners

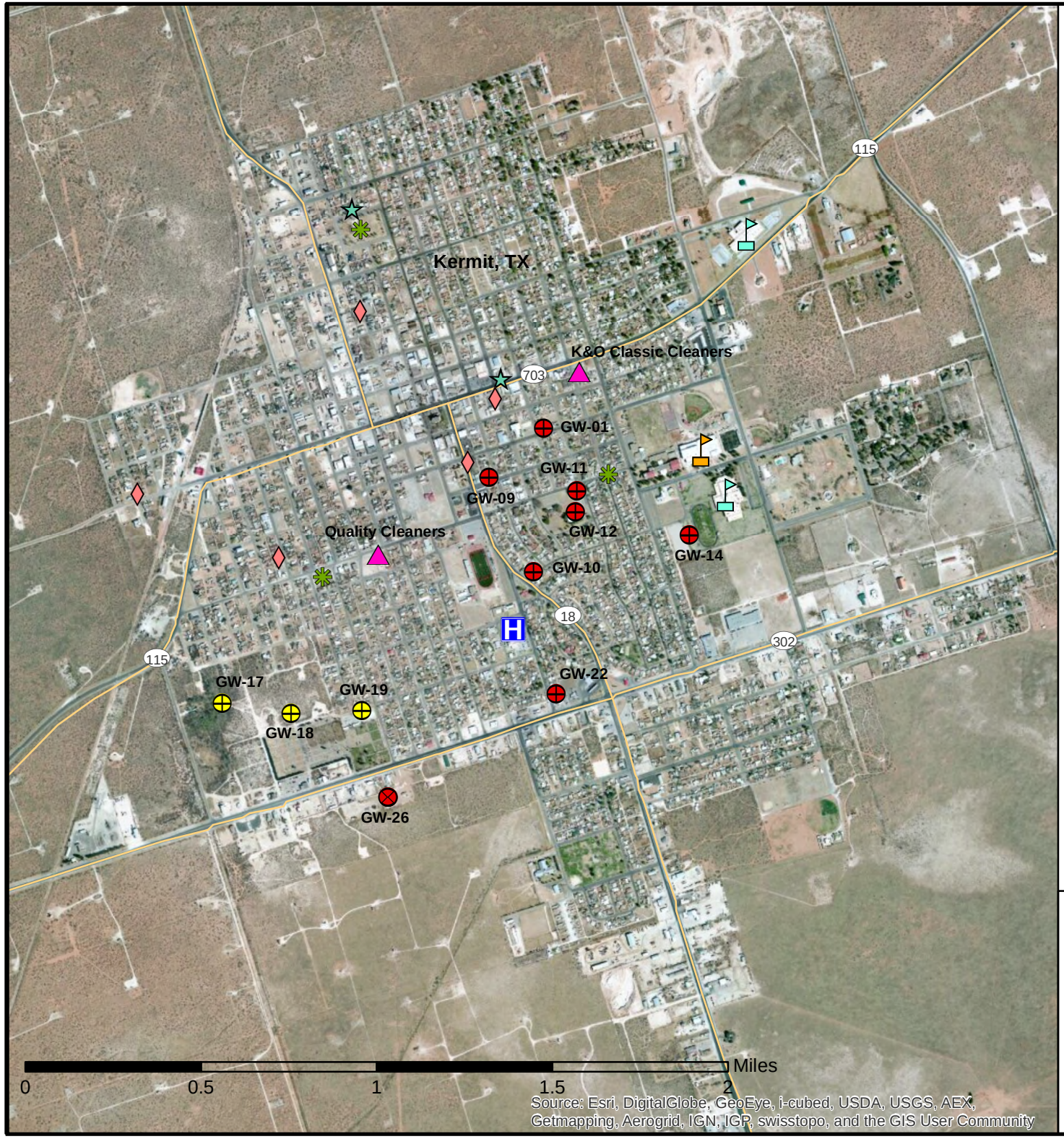
K&O Classic Cleaners is located at 701 E. Austin Street (31.85881° N, -103.087814° W), upgradient of the six affected wells located in the center of the city (Figure 1). K&O Classic Cleaners is located approximately 0.34 mile northeast of GW-09, the well with the highest detected concentration of PCE (Figure 1). In June 2013, TCEQ Superfund staff observed a bulging 55-gallon drum located behind the site containing Exxsol D 60 Naphtha (Ref. 6, p. 9; Ref. 7, pp. 19-20, 22-23). Vapors were emanating from a process pipe and condensate was dripping to the ground from the pipe (Ref. 6, p. 9; Ref. 7, pp. 26-27). The soil and side of the facility near the bulging drum and process pipe were stained; however, this staining may be from rust from the process pipe. Other debris was located near the bulging drum and process pipe, including an unknown tank purchased from Mustang Enterprises, Ltd. (a distributor of dry cleaning appliances) (Ref. 7, pp. 24-25, 28; Ref. 9, pp. 1-2). There is apparent drainage from the debris that begins at the bulging drum and ends after the unknown storage tank (Ref. 7, pp. 24, 27-28). TCEQ staff could not establish contact with the owners of this facility in order to verify the chemicals used in the dry cleaning process.

2.6.2 Source 2: Quality Cleaners

Quality Cleaners is located at 401 W. Campbell Street (31.85242° N, -103.09607° W), west of the six affected wells in the center of the city and upgradient of the five affected wells in the south/southwestern area of the city (Figure 1). In June 2013, TCEQ Superfund staff observed a 55-gallon drum containing KWIK-DRI 66 on the west side of the dry cleaning facility (Ref. 6, p. 11; Ref. 7, p. 33-34). KWIK-DRI 66 is a dry cleaning solvent composed of aliphatic hydrocarbons (Ref. 29, p. 1). The drum did not appear to be bulging or deteriorating. Two 55-gallon drums containing an unknown solvent were

observed on the east side of the facility, neither of which appeared to be bulging or deteriorating. The two drums were not stored in an upright position, but were sitting at an approximate 70-degree angle (Ref. 6, p. 11; Ref. 7, p. 33-34, 36-39). The back of the facility included a fenced-off area that could not be accessed. Contained within the fence is a conditioning unit and storage tank (Ref. 7, p. 35). The facility owner, Paul Bentley, stated that the facility uses only petroleum-based cleaning solvents and does not use PCE or TCE. According to Mr. Bentley, no waste is stored or disposed at the facility, because all the used chemicals either evaporate or are recycled back into the system. Mr. Bentley also stated that he does not think K&O Classic Cleaners uses PCE or TCE due to high costs (Ref. 13).

Figure 1. Site Location and Features Map

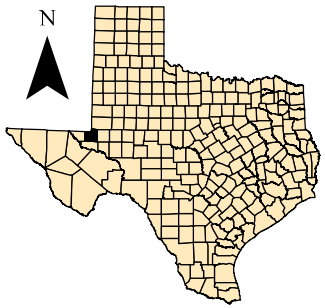


TCEQ

Kermit PWS

Kermit
Winkler County, TX

EPA ID Pending



- PCE Detection Public Well
- TCE Detection Public Well
- PCE Detection Private Well
- Source
- School
- Nearest School to Source
- Recreational Area
- Church
- Daycare
- Hospital

The base map is a 2013 1:100,000 scale ESRI aerial imagery map published by ESRI in 2013. Projection: Web Mercator Auxiliary Sphere (WKID 102100). This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363. Map created by Kandice Spera in February 2014.

3 MIGRATION/EXPOSURE PATHWAYS

The following sections describe migration/exposure pathways and potential receptors within the site's range of influence.

3.1 GROUNDWATER MIGRATION PATHWAY

The target distance limit (TDL) for the groundwater migration pathway is a 4-mile radius that extends from the sources at the site. Figure 2 depicts the groundwater 4-mile TDL.

3.1.1 Geologic Setting

Although the Dockum aquifer consists of many formations, the only formation of concern is the Santa Rosa formation in Winkler County (Ref. 10, p. 2). A mantle of dune sand and alluvium of Cenozoic age overlies the older rocks in Winkler County, ranging in thickness from a few feet to about 1,050 feet (Ref. 11, p. 26). A belt of sand dunes 8 to 15 miles wide extends southeastward through the eastern part of Winkler County and ranges in thickness from 0 to 250 feet (Ref. 11, pp. 34-35). Underlying the dune sand is Cenozoic Pecos Alluvium, which consists of unconsolidated sand, silt, gravel, clay, and caliche (Table 1; Ref. 11, p. 34). This formation has an average thickness of about 100 feet except in the trough of the County, where it reaches depths of 1,050 feet. The alluvium is similar in color to the underlying Triassic red beds (Ref. 11, p. 34).

The Fredericksburg Group underlies the Cenozoic Pecos Alluvium and consists of the Kiamichi, Goodland limestone, and Walnut clay formations (Table 1). The Fredericksburg Group ranges in thickness of 0 to 50 feet, and consists of gray to cream and brown hard to earthy fossiliferous and sandy marine limestone (Ref. 11, p. 34).

Underlying the Fredericksburg Group is the Trinity Group, consisting of the Paluxy Sand, Glen Rose Limestone, and Twin Mountains formations (Table 2). This group has a

maximum thickness of about 100 feet where it crops out in northeastern Winkler County (Ref. 11, p. 33). The Trinity consists of sandstone, siltstone, conglomerate, and gravel cemented with carbonate minerals (Ref. 11, p. 33).

The Dockum Aquifer, a minor aquifer, is found in the northwest part of Texas and is defined stratigraphically by the Dockum Group, which includes (distinct to Winkler County) the Chinle Formation Equivalent and the Santa Rosa Sandstone (Ref. 10, p. 2; Ref. 11, p. 33). The Dockum Group unconformably underlies the Trinity Group (Table 2; Ref. 11, p. 33). The Tecovas Formation, the Trujillo Sandstone, and the Cooper Canyon Formation underlie the Santa Rosa Sandstone and make up the rest of the Dockum Group (Ref. 10, p. 2). However, these formations are not of concern since they underlie the principal aquifer. The Chinle Formation Equivalent is considered the geologic equivalent of the Chinle Formation in the Colorado Plateau region; however, locally, it makes up the top formation of the Dockum Group. In Winkler County, the Chinle Formation Equivalent ranges in thickness from 0 to 1,000 feet. It consists of brick-red to maroon and purple shale and beds of fine red or gray sandstone and siltstone (Table 2; Ref. 11, p. 33). Conformably underlying the Chinle Formation Equivalent is the Santa Rosa Sandstone; the formation underlies the Cenozoic Pecos Alluvium where the Chinle Formation is absent (Ref. 11, p. 33). The Santa Rosa Sandstone ranges in thickness from 0 to 350 feet and consists of reddish-brown and gray medium-to-coarse-grained, subangular arkosic, micaceous, and conglomerate sandstone cemented with calcite and some silica (Table 2; Ref. 11, p. 33).

Table 2. Site Stratigraphy

System	Series or Group	Formation	Function	Thickness (ft)
Quaternary		Dune Sand	Recharge Facility	0-250 ft.
		Cenozoic Pecos Alluvium	Aquifer	0-1,050 ft.
Cretaceous	Fredericksburg Group	Kiamichi Formation	Non-yielding	0-50 ft.
		Goodland Limestone		
		Walnut Clay		
	Trinity Group	Paluxy Sand	Aquifer in NE Winkler County	0-100 ft.
		Glen Rose Limestone		
		Twin Mountains Formation		
Triassic	Dockum Group	Chinle Formation Equivalent	Non-yielding	0-1000 ft.
		Santa Rosa Sandstone	Primary Aquifer	0-350 ft.

(Ref. 11, pp. 23-24; Ref. 12, p. 5)

3.1.2 Aquifer System

The Dockum Aquifer, a minor aquifer, is found in the northwest part of Texas and is defined stratigraphically by the Dockum Group, which includes (distinct to Winkler County) the Chinle Formation Equivalent and the Santa Rosa Sandstone (Ref. 10, p. 2; Ref. 11, p. 33). The Dockum Group consists of gravel, sandstone, siltstone, mudstone, shale, and conglomerate. Groundwater located in the sandstone and conglomerate units is recoverable, with the highest yields coming from the coarsest grained deposits located at the middle and base of the group (Ref. 10, p. 2). Typically, the water-bearing sandstones are locally referred to as the Santa Rosa Aquifer. The water quality in the aquifer is generally poor—with freshwater in outcrop areas in the east and brine in the western subsurface portion of the aquifer—and the water is very hard (Ref. 10, p. 2). Naturally occurring radioactivity from uranium present within the aquifer has resulted in gross alpha radiation (Ref. 10, p. 2).

The Santa Rosa Sandstone and the Cenozoic Pecos Alluvium are distinct to Kermit, Texas, but the Santa Rosa Sandstone Formation is the principle aquifer with an approximate thickness of 300 feet; the depth from the ground surface to the top of the Santa Rosa Sandstone is approximately 200 feet (Ref. 6, p. 1; Ref. 11, p. 36; Ref. 14, pp. 1-2). The thickness of the Cenozoic Pecos Alluvium ranges from about 100 feet to 170 feet throughout Kermit, Texas; the depth from the ground surface to the top of the formation is approximately 50 feet (Ref. 14, pp. 1-2). The Santa Rosa Sandstone is mostly confined throughout Winkler County by artesian pressure from the overlying Chinle Formation Equivalent, whereas water in the Cenozoic Pecos Alluvium is unconfined and occurs under water-table conditions (Ref. 11, p. 35). However, where the Chinle Formation Equivalent is absent in Winkler County, the Santa Rosa Formation and the Cenozoic Pecos Alluvium are in contact, forming a single unconfined aquifer (Ref. 11, p. 35). There are no discontinuities within four miles of the site; however, there is one interconnection between the Santa Rosa Sandstone and the Chinle Formation Equivalent that occurs within two miles of the site in the southwest area of Kermit,

Texas (Ref. 11, pp. 1-2-). The general groundwater flow in the Dockum aquifer in West Texas is to the Southeast (Ref. 12, p. 4-5).

3.1.3 Drinking Water Receptors

The eight active PWS wells distribute drinking water sourced from the Santa Rosa aquifer to the citizens of Kermit, Texas via two points of entry: the Underwood pump house (EP001) and the Walton pump house (EP002). GW-10 has been offline for the past 2 years and GW-09 has not been turned on for the past year (Ref. 6, pp. 5, 7).
The PWS wells with PCE/TCE detections range in depth from 300 feet to 700 feet, and the mean depth is about 486 feet (Ref. 28).

There are four private wells (GW-07, GW-16, GW-25, and GW-26) located within four miles of the center-most affected well; however, PCE was only detected in one (GW-26) (Figure 2). Although these private wells are not known to be used for drinking, the water is used for household and business purposes, such as filling swimming pools, watering lawns, and rinsing trucks (Ref. 6, p. 7). GW-07 reaches a depth of 273 feet, GW-25 reaches a depth of 256 feet, and GW-16 and GW-26 have unknown depths (Ref. 6, p. 17; Ref. 32, p. 1-4). GW-26 was noted to be a sole-source well but it could not be verified whether the water was used for drinking purposes (Ref. 6, p. 13).

The 18 sampled wells are all located within the 4-mile TDL (Figure 2). There are approximately 520 acres of agricultural land located within the 4-mile TDL (Figure 2). The plots of agricultural land located to the southeast of Kermit used to operate as a potato farm in the early 2000s, and are part of a 6,743.5 acre ranch that houses 33 water wells producing about 3,500 gallons per minute (Ref. 15, p. 3; Ref. 16, p. 3; Ref. 17). Thirty-two of the wells are used as test wells, and one is used as a public supply well, but it is not located within the 4-mile TDL (Ref. 17). The pastures within the ranch are used to house and hunt game (Ref. 16, p. 3). Based on aerial imagery, there are an additional 11.4 acres of agricultural land located on the southeastern border of Kermit (Figure 2). The site is not located within a wellhead protection area (Ref. 18).

3.2 SURFACE WATER MIGRATION PATHWAY

The surface water migration pathway TDL begins at the probable point of entry (PPE) of surface water runoff from the site to a surface water body and extends downstream for 15 miles.

3.2.1 Overland Route

Surface water runoff in the city generally travels northeast to southwest (Figure 2). There are old City of Kermit Wastewater Treatment Plant (WWTP) ponds located approximately two miles south of the nearest well where PCE was detected (Figure 2; Ref. 33). They are currently under closure as part of the construction of the new WWTP ponds (Ref. 33). There are no other surface water bodies located within two miles of the site. The PPE(s) to the wastewater treatment ponds are located on the northeastern banks of each. From the two potential sources to the ponds, the land slopes approximately 15 to 17 feet to the southwest (Figure 2).

Winkler County is located in the area of Texas with mainly Trans-Pecos soils. Surface drainage is slow to rapid. Upland soils are mostly well-drained, light-reddish brown to brown clay loams, clays, and sands. Many areas have shallow soils and rock outcrops, and sizable areas have deep sands. Bottomland soils are deep, well-drained, dark grayish-brown to reddish-brown silt loams, loams, clay loams, and clays (Ref. 19, p. 1). The 2-year, 24-hour rainfall average for the site is approximately 2.5 inches (Ref. 20, p. 5).

3.2.2 Drinking Water Receptors

There are no surface water intakes within two miles of the site.

3.2.3 Human Food Chain Receptors

The amount of fish consumption within two miles of the site is unknown.

3.2.4 Environmental Receptors

There is a forested wetland located within two miles of the site. This forested wetland is classified as Palustrine Forested Broad-Leaved Deciduous (Nontidal, Temporarily Flooded) (PFO1A) (Figure 2; Ref. 22, p. 2). The PFO1A wetland is located within the 4-mile TDL (Figure 2). The total approximate area of the forested wetland is 6.8 acres with a perimeter of 0.43 mile (Figure 2). Threatened or endangered species within Winkler County include the Peregrine Falcon (*Palco peregrinus*), American Peregrine Falcon (*Falco peregrinus anatum*), Bald Eagle (*Haliaeetus leucocephalus*), and Gray Wolf (*Canis lupus*) (Ref. 21).

3.3 SOIL EXPOSURE PATHWAY

The soil exposure pathway is evaluated based on the threat to residents and nearby populations from hazardous substances present within two feet of the surface.

3.3.1 Site Setting and Sources

The site is a groundwater plume with two potential sources: K&O Classic Cleaners and Quality Cleaners. Both sources are located upgradient of wells and have chemicals and waste being stored outside (Ref. 7, pp. 19, 34, 36). K&O Classic Cleaners has vapors emanating from a process pipe (Ref. 7, pp. 26-27). Most of the exposed sources are unsecured; however, two waste drums are secured by a chain-link fence at Quality Cleaners (Ref. 7, p. 36).

3.3.2 Receptors

Neither of the two potential sources is located within 200 feet of schools, day-care facilities, terrestrial sensitive environments, or land resources.

3.4 AIR MIGRATION PATHWAY

The air migration pathway TDL is a 4-mile radius that extends from sources at the site (Figure 2).

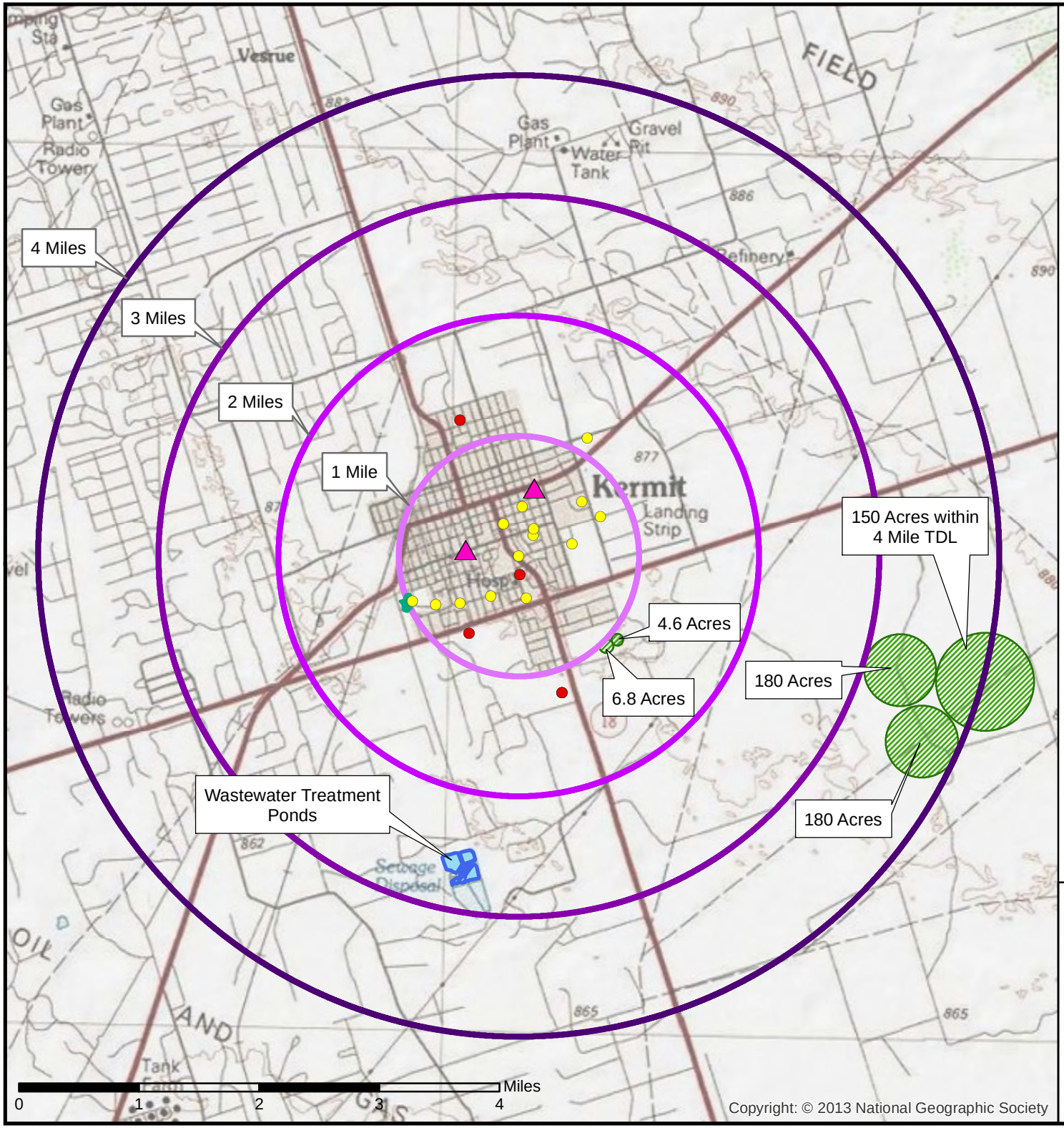
3.4.1 Air Pathway Receptors

The site is a groundwater plume with two potential sources: K&O Classic Cleaners and Quality Cleaners. At K&O Classic Cleaners, TCEQ staff observed vapor emanating from a process pipe and releasing into the air (Ref. 6, p. 9; Ref. 7, pp. 26-27). There are no known citizen complaints of air releases. The shortest straight-line distance from K&O Classic Cleaners to the nearest residence is approximately 30 feet east (Figure 1). The population of the City of Kermit is approximately 5,708 people; the 4-mile TDL extends about three miles out from the borders of the city (Figure 2; Ref. 5, p. 1). The number of residents, students, and workers present within the 4-mile TDL is unknown.

3.4.2 Environmental Receptors

There are two recreational areas located within 0.5 mile of the potential sources. Winkler County Golf Course is located approximately 0.3 mile south of K&O Classic Cleaners, and Dirtceil Park is located about 0.17 mile west of Quality Cleaners (Figure 2). There is no commercial agriculture or commercial silviculture present within 0.5 mile of the site. A 6.8-acre PFO1A wetland is located approximately 0.6 mile southwest of Quality Cleaners.

Figure 2. 4-Mile Radius Target Distance Limit Map



TCEQ

Kermit PWS

Kermit
Winkler County, TX

EPA ID Pending

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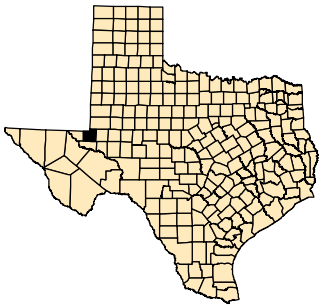

- Potential Source
- Public Water Well
- Private Water Well
- Agricultural Area
- Wetland

The base map is a 2013 1:100,000 scale USA topographic map published by the National Geographic Society in 2013. Projection: WGS 1984. This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363. Map created by Kandice Spera in November 2013.

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Superfund

EPA

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September 1991

EPA

Guidance for Performing Preliminary Assessments Under CERCLA

Reference 4

Aerial Image of Kermit, TX

Reference 5

From:	John Shepard
To:	Kandice Spera
Cc:	Pete Kampfer; Gloria Saenz; Frankie
Subject:	RE: Kermit PWS
Date:	Tuesday, August 06, 2013 3:02:50 PM

Of the 11 City of Kermit water wells that were sampled [10 active – (1 inactive, GW-10, EP2)] they are distributed to the citizens through two points of entry (EP's) on the same pressure plane (equal distribution). Each entry point could actually supply the whole town as a single provider during periods of below average to low demands.
EP1 is the Underwood Pump House and is actively fed by 4 water wells; GW-17, GW-18, GW-19 and GW-20.
EP2 is the Walton Pump House and is actively fed by 6 (actually 5, see Note) water wells; GW-1, GW-9, GW-11, GW-12, GW-13 and GW-22. Note: The proximity of GW-11 and GW-12 doesn't allow them to run simultaneously due to the zone of influence and drawdown of the cone of depression effect. These are "either – or" wells, never both.
Therefore, the 2010 population census of 5708 / 9 wells (4 @ EP1 + 5 @ EP2) = 634 citizens per well. Of course, the population figures were calculated prior to the Permian Basin Shale Boom so the population count is on the low side. Who actually knows the population being served now, but I commonly hear of population projected increases discussed in the 12+/-% range.

John C. Shepard
Director of Public Works
City of Kermit
110 S. Tornillo St.
Kermit, Texas 79745
432-586-3468 office
432-586-2220 fax
432-940-1380 cell
dir.publicworks@cityofkermit.net

From: Kandice Spera [mailto:Kandice.Spera@tceq.texas.gov]
Sent: Tuesday, August 6, 2013 11:17 AM
To: dir.publicworks@cityofkermit.net
Subject: Kermit PWS

Hi John,

Thank you for the quick response to my email. As I stated in my previous email, we are beginning to score the site in order to see if it qualifies for either the State or Federal Superfund Program. In order to do so, I will most likely be asking several questions to obtain certain details. For instance, of the 12 PWS wells that we sampled [not including the well that is offline (GW-10)], how many people do they serve? A percentage or ratio is fine. However, if you know how many people *each* well serves, that would be fantastic. Thank you for your continuing help, and like always, if you have any questions, please do not hesitate to contact me.

Thanks,

Kandice Spera **| Project Manager | Superfund Section- Remediation Division | Texas Commission on**

Environmental Quality | ☎ O: 512-239-2263 | C: 260-273-7789 | ✉ kandice.spera@tceq.texas.gov

Reference 6

Kermit PWS No. 2480001 6/4/2013

10:45 Arrived at Kermit PWS offices. EA Kandice Spera on site. All photographs + documentation collected by EA.

10:50 Talked to John Shepard. He informs that the groundwater bearing unit is the Pecos Basin with fingering from the Santa Rosa minor aquifer. The groundwater gradient is confirmed to be from the NE to the SW. He stated that he is unaware of any chlorinated ~~solvents~~ sources.

11:00 Tailgate H&S safety meeting led by EA.

11:05 Prepared to sample GW 19, Kermit Wells #19 Site Conditions: hot, dry, breezy, clear skies, 92°F. Photo 1 of GW 19, wellhead (E)

11:40 Consulted with Linda from Kermit PWS staff regarding the addition of target wells at the SW sector of the site, mindful of the groundwater gradient. She informs that there is no longer a Kermit PWS well in that area, as it was plugged due to poor production. She also inform that TxDOT may have a well in that area.

11:55 Photos 2 through 5 of ~~sampling~~ sample collection at GW 19 (S E).

2

KP
6/11/2013

6/4/2013

12:10 Prepared to Sample GW18. GPS: I060414A-GW18. Photo 6 of GW18 (NW). Discrepancy noted in the FSP between table 1 and the sample nomenclature on the map. The map + associated Appendix A were found to be correct and will supercede Table 1. The referenced map was created by Kandice Spera.

12:20 Departed GW18 to find downgradient wells

12:40 Left access agreement form on property with potential downgradient well, located at approximately 5m Sharp Blvd and Texas Ave intersection.

12:50 Prepared to sample GW17. GPS: I060415A-GW17. Photo 7 of GW17 (SE).

13:00 Depart GW17 to collect access agreements for private wells.

13:15 Verified GW25 operational and collected access agreement.

13:50 Arrive at GW20, preparations for sampling underway. GPS: I060416A-GW20. Photo 8 of GW20 (NE).

~~14:40~~ 14:25 Prepared to Sample GW22. GPS: I060416A-GW22. Photo 9 of GW22 (NE)

6/4/2013

6/4/2013

15:00 Prepared to sample GW 10. GPS: IQ60 417A-GW10. Photo 10 of GW10 (SW). Kermit PWS staff (Linda) informed that this well has not been operational for 2 years. Field blank for today's sampling day collected here. Duplicate GW-98 collected here. Note: contractor informs that no lab grade water was brought to the field for collection of the field blank samples. Distilled water from convenience store is being used as substitute.

15:55 Ended sampling for the day to allow ample time for sample shipment prep + transport to Midland Airport.

16:10 Dropped off access agreement form at (b) (6) [redacted] (a.k.a. GW16).

16:20 Dropped off access agreement form at (b) (6) [redacted] (a.k.a. GW 21)

16:25 Depart Site. Discussion: data gaps still include identifying potential sources. Efforts in field tomorrow will focus on identifying potential sources.

6/5/2013

6/5/2012

Kermit PWS No. 2480001 6/5/2013

8:55 Prepared to sample GW 16. Spoke with homeowner [(b) (6) [redacted]] after obtaining signed Access Agreement form. She said 4 (four) people use the well water on a regular ~~propt~~ basis; they only use the water for pool water and water lawn and plants.

9:15 GPS: I060511A - GW 16. Photo 11 of GW 16 (S).

9:40 Prepared to sample GW 25. GPS: I060512A - GW 25: Photo 12 of GW 25. Photos 13 through 17 of ASTs containing drilling related chemicals. Photo of GW 25 (Photo 12) facing is NW. Facing of photo 13 through 17 is South.

10:46 Prepared to sample GW09. GPS: I060515A - GW 09: Photo 18 of GW09 (W). Kermit PWS Staff (Linda) informs that the Kermit PWS production ranges between 1.8 - 3.0 million gallons per day. GW 09 has not been turned on in over a year.

11:05 Departed GW 09 to search for potential sources. Identifies active dry cleaner upgradient from known affected wells. Location at 701 E. Austin St. Photos 19 through 28 of materials + equipment associated with dry cleaning operations.

6-4-2013

6/5/2013

Two prominent facts include: (1) Bulging of drum (55 gal) containing Exxsol D 60 Naphtha, (2) Vapors emanating a process pipe and condensate dripping to the ground from the pipe. All photos have an approximate facing of North.

11:23 Other potential sources identified at the intersection of Co. Rd. 115 and Isis Ct. These potential sources are drilling support entities.

11:30 Preparing to sample GW-01. GPS: I060513A-GW01. Photo 29 of GW01 (W). Information about deviation from the FSP and Map and associated appendix A, created by Handice Spera: this GPS point supeceeds the coordinates listed in Appendix A for GW 01.

12:20 Preparing to sample GW-12. GPS: I060514A-GW12. Photos 30 and 31 of GW12 and Pumphouse. Photo 30 has facing of West. Photo 31 has facing of East.

12:34 GW-01 GPS: I060514A-GW01 supeceeds the previous GPS file for GW-01.

6/5/2013

6/5/2013

6/5/2013

12:50 Preparing to sample GW-13. GPS: I060548A-GW13. Photo 32 of GW-13 (SE).

13:00 Departed GW-13 to conduct reconnaissance on potential sources.

13:25 Identified active dry cleaner operation at 401 W. Campbell St. Photos 33 through 37 show solvent source at the dry cleaner. Photos 38 and 39 collected by Omar Valdez, depicting waste drums staged outside the facility. Photos 33 through 35 have a ~~bac~~ (KS) facing of East. Photos 36 through 39 have a facing of SW.

13:53 Prepares for sampling GW-11. GPS: I060515A-GW11. Photo 40 of GW-11 (NW). Purge water revealed red clays. Kermit PWS staff (Linda) that this well has been offline due to poor production and confining layer, red bed sedimentation. TCEQ provided contractor with directive to sample prior to parameter stabilization as this well was contributing to the source water tank with excessive sedimentation.

KS 6/5/2013

6/5/2013

6/5/13

14:10 Arrived at MW Kermit PWS. Only GPS coordinates and a photo were taken at this well. No sampling was conducted. GPS: I060516A-MW. Photo 41 of MW Kermit PWS. This labeling supercedes the labeling and coordinates presented in the map and its associated appendix A, created by Kandice Spera.

14:20 Prepared sampling for GW-26. GPS: I060516A-GW26. Photo 42 of GW-26. Photo 43 depicts AST near GW-26 without secondary ~~A~~ KS containment; it is a gasoline AST, as identified by the UN 1993 ~~plackar~~ KS placard. Obtained signed access agreement form from property owner. KS

15:10 Identified two (2) ASTs near MW Kermit PWS without secondary containment. These are ~~B~~ KS depicted in photos 44 and 45. Note that GW-26 is a sole-source well.

15:38 Depart Site. Note: tomorrow, GW assessment efforts will focus on Kermit School District Water wells + potential source investigation will focus on environmental soil borings previous identified in TWBD. A private well will be sampled as a background. KS 6/5/13

6/6/13

Kermit PWS no. 2480001 6/6/13

9:10 Met with Kermit Public School District staff to negotiate access.

9:20 Depart Kermit PSD to conduct ~~unconnaissance~~ (KS) reconnaissance of environmental soil boring 03. Will return to Kermit PSD offices once access agreement is signed.

9:45 Photo 46 of SB03.

9:50 Obtained signed access agreement form from Kermit PSD Staff. Site conditions are mild, low-80's, breezy from North, much milder from yesterday which was very hot, dry, intermittent clouds, with temp above 105°F.

10:30 Prepared to sample GW-27. This well has been added + is not listed in Appendix A + associated map, created by Khandire Spera. GPS: ID060612A-GW27. Photo 47 is of GW-27. It was discovered that the Kermit PSD has active water wells within the area of investigation. Wells were added from the Kermit PSD as they provide excellent spatially distributed sampling locations within known affected areas.

KS 6/6/13

6/6/13

6/6/13

11:40 Prepares to sample GW-28. GPS: I060614A-GW28. Photo 48 of GW-28.

12:15 Prepares to sample GW-14. GPS: I060614A-GW14. Photo 49 of GW-14. This location supercedes the location depicted on the Map and the associated Appendix A, created by Mandice Spera.

13:00 Prepared to Sample GW-07. GPS: I060615A-GW7. Photo 50 of GW-07. This location supercedes the location depicted on the map and the associated Appendix A, created by Mandice Spera. Well specifications are as follows: Well ID: 4616114; Date Drilled: 1965; Well depth: 273; Screening Interval: 255 - 273. KS

13:55 Arrives in general location of SB05 and SB06. Photo 51 show that the location was a former gas station. ~~KS~~ KS Thus, not likely a chlorinated solvent source.

14:30 Depart Site. Note: Kermit ISD brought to TCEQ's attention a fine black sediment-like film forms on their filter influent to their storage tanks. TCEQ did ~~observe~~ KS observe this

6/16/13

6/6/13

black film. It is important to note that the Kermit BD staff have stated that none of their wells are a potable source.

6/6/13

Reference 7

Texas Commission on Environmental Quality

Photographic Documentation: Kermit PWS

10 July 2013

Photographer: Kandice Spera

Date: 6/4/2013 to 6/6/2013

Photo 1. Facing East. Photo of GW-19 within the Underwood Pump House (EP 001).

Photo 2. Facing East. Photo of sample collection at GW-19 within the Underwood Pump House (EP 001).

Photo 3. Facing East. Photo of sample collection at GW-19 within the Underwood Pump House (EP 001).

Photo 4. Facing East. Photo of sample collection at GW-19 within the Underwood Pump House (EP 001).

Photo 5. Facing East. Photo of sample collection at GW-19 within the Underwood Pump House (EP 001).

Photo 6. Facing Northwest. Photo of GW-18.

Photo 7. Facing Southeast. Photo of GW-17.

Photo 8. Facing Northeast. Photo of GW-20.

Photo 9. Facing Northeast. Photo of GW-22.

Photo 10. Facing Southwest. Photo of GW-10.

Photo 11. Facing South. Photo of GW-16.

Photo 12. Facing Northwest. Photo of GW-25.

Photo 13. Facing South. Photo of one of five ASTs adjacent to GW-25.

Photo 14. Facing South. Photo of one of five ASTs adjacent to GW-25.

Photo 15. Facing South. Photo of one of five ASTs adjacent to GW-25.

Photo 16. Facing South. Photo of one of five ASTs adjacent to GW-25.

Photo 17. Facing Southwest. Photo of five ASTs adjacent to GW-25.

Photo 18. Facing West. Photo of GW-09.

Photo 19. Facing North. Photo of material, debris, and equipment associated with K&O Classic Cleaners (701 E. Austin Street), as well as staining on the side of the facility and soil.

Photo 20. Facing North. Photo of material, debris, and equipment associated with K&O Classic Cleaners (701 E. Austin Street), as well as staining on the side of the facility and soil.

Photo 21. Facing North. Photo of staining on the side of the facility and soil of K&O Classic Cleaners (701 E. Austin Street).

Photo 22. Facing North. Photo of bulging 55-gallon drum associated with K&O Classic Cleaners (701 E. Austin Street).

Photo 23. Facing North. Photo of bulging 55-gallon drum associated with K&O Classic Cleaners (701 E. Austin Street).

Photo 24. Facing North. Photo of material, debris, and equipment associated with K&O Classic Cleaners (701 E. Austin Street).

Photo 25. Facing North. Photo of unknown tank associated with K&O Classic Cleaners (701 E. Austin Street).

Photo 26. Facing North. Photo of unknown vapor emanating from process pipe associated with K&O Classic Cleaners (701 E. Austin Street).

Photo 27. Facing North. Photo of unknown condensate dripping onto the ground from process pipe associated with K&O Classic Cleaners (701 E. Austin Street).

Photo 28. Facing North. Photo of evidence of drainage from the material, debris, and equipment associated with K&O Classic Cleaners (701 E. Austin Street).

Photo 29. Facing West. Photo of GW-01.

Photo 30. Facing West. Photo of GW-12 within the Walton Pump House (EP 002).

Photo 31. Facing East. Photo of GW-12 within the Walton Pump House (EP 002).

Photo 32. Facing Southeast. Photo of GW-13.

Photo 33. Facing East. Photo of 55-gallon drum of solvent associated with Quality Cleaners (401 W. Campbell Street).

Photo 34. Facing East. Photo of 55-gallon drum of solvent associated with Quality Cleaners (401 W. Campbell Street).

Photo 35. Facing East. Photo of storage tank and conditioning unit associated with Quality Cleaners (401 W. Campbell Street).

Photo 36. Facing Southwest. Photo of two 55-gallon waste drums associated with Quality Cleaners (401 W. Campbell Street).

Photo 37. Facing Southwest. Photo of two 55-gallon waste drums associated with Quality Cleaners (401 W. Campbell Street).

Photo 38. Facing Southwest. Photo of two 55-gallon waste drums associated with Quality Cleaners (401 W. Campbell Street).

Photo 39. Facing Southwest. Photo of two 55-gallon waste drums associated with Quality Cleaners (401 W. Campbell Street).

Photo 40. Facing Northwest. Photo of GW-11.

Photo 41. Facing East. Photo of MW Kermit PWS.

Photo 42. Facing North. Photo of GW-26.

Photo 43. Facing North. Photo of AST without secondary containment located on property of GW-26.

Photo 44. Facing Northeast. Photo of AST without secondary containment located near MW Kermit PWS.

Photo 45. Facing Northwest. Photo of AST without secondary containment located near MW Kermit PWS.

Photo 46. Facing Southwest. Photo of location of environmental soil boring (SB-03).

Photo 47. Facing Northeast. Photo of GW-27.

Photo 48. Facing Northeast. Photo of GW-28.

Photo 49. Facing Northeast. Photo of GW-14.

Photo 50. Facing East. Photo of GW-07.

Photo 51. Facing East. Photo of location of two environmental soil borings (SB-05 and SB-06).

Reference 8

Pre-CERCLIS Screening Checklist

City of Kermit - PWS ID# 2480001
P.O. Drawer P
Kermit, Winkler County, Texas

REGION VI

Prepared in cooperation with the
U.S. Environmental Protection Agency

December 2002

8.0001

Pre-CERCLIS SCREENING CHECKLIST

CITY OF KERMIT - PWS ID# 2480001
P.O. DRAWER P
KERMIT, WINKLER COUNTY, TEXAS

TXD PENDING

SIGNATURE PAGE

Meagan Haws — 12/2/02

Meagan D. Haws
Texas Commission on Environmental Quality
Project Manager

Date

Kelly W. Cook — 12/6/02

Kelly W. Cook
Texas Commission on Environmental Quality
PA/SI Program Manager

Date

Wesley G. Newberry — 12/6/02

Wesley G. Newberry
Texas Commission on Environmental Quality
PA/SI Program Technical Director

Date

William Rhotenberry
U.S. Environmental Protection Agency

Date

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Figure 1. Table of sample analysis for Kermit Public Water Supply Corporation....4

Pre-CERCLIS Screening Health and Safety Plan....Appendix A

PRE-CERCLIS FIELD SCREENING CHECKLIST

1.0 GENERAL SITE INFORMATION

SITE NAME: City of Kermit-PWS ID# 2480001			
ADDRESS: P.O. Drawer P (Mailing) 110 South Tornillo Street (Physical)			
CITY: Kermit	ZIP: 79745	COUNTY: Winkler	CONG. DIST: 23
PHYSICAL LOCATION (directions to site): From Highway 302, proceed north on Highway 18 (Poplar Street). Then take a left on East Austin Street and another left on South Tornillo. The physical address is 110 South Tornillo.			
TYPE OF OWNERSHIP _X_ Municipal __ Private __ Federal __ Indian Nation __ State __ County Other _____			
SITE STATUS: _X_ Active __ Inactive __ (not specified) _7_ # of employees (if active)		YEARS OF OPERATION __ Unknown _1938_ / _Present_ Begin End	
EPA ID # _Pending_ State SWR # _____ Other # _PWS ID# 2480001_			
Site Owner (if available): City of Kermit			
Site Operator (if available): Freddie Mac Jones			

Description of site activities
(e.g. manufacturing plant, abandoned refinery, etc.)

This site is a public water supply system in the city of Kermit. The groundwater is extracted from 12 wells. These wells are distinguished by a lettering system which ranges from G2480001A to G2480001O with wells N and O being the same well. The groundwater is taken from two aquifers, the Alluvium and the Santa Rosa aquifers (Ref 1). The well water is then disinfected in two chlorination stations before it is stored in one of four concrete tanks located at two pump houses. The pump houses, Underwood and Walton, are used to pump the water into elevated storage tanks to await delivery to the residents (Ref 1). Wells A, B, D, E, and H are pumped to the Underwood pump house (See photographs 1-6) and wells F, G, I, J, L, M, and N/O are pumped to the Walton pump house (See photographs 7-13).

Comments

Wells D and G are on demand status which means they are used when there is a demand for more water in the Kermit area (Ref 7). Well C is abandoned and well K is plugged (Ref 7).

2.0 SITE SCREENING INFORMATION

Date:	11/6/02	Time:	11:00 am
TCEQ Personnel:	Meagan Haws and John Syer, SSDAP		

The City of Kermit Public Water Supply Corporation has a total of fourteen wells. Two are no longer active and the other twelve were visited during this Pre-CERCLIS site visit. Mr. Mark Coburn, an employee of the Kermit PWS, accompanied SSDAP team members. All twelve wells and the two pump houses were observed, located with a Global Positioning System (GPS), and photographed for documentation. Mr. Coburn offered information about each well while in the field, and Mr. Freddie Mac Jones, Kermit PWS operator, was informative also.

3.0 RANK (Seriousness of Situation)

☐ 1 **Low Potential Hazard** - No waste source(s) identified and/or limited or no targets identified.

☐ 2 **Low to Moderate Potential Hazard** - May have a waste source(s) and/or limited or no targets identified.

☐ 3 **Moderate Potential Hazard** - Potential waste source(s), potential targets are present in the area but no release is suspected.

☐ 4 **Moderate to High Potential Hazard** - Potential waste source(s) identified, a release may be suspected and potential targets are present in the area.

☒ 5 **High Potential Hazard** - Potential waste source(s) identified, a release is strongly suspected or observed, targets are present in the area and may be impacted. Sites in this category are believed to require immediate attention by EPA.

☐ 6 **Other** - Sites that for various reasons, do not fit into one of the above scoring criteria. An explanation is attached.

4.0 HAZARD DESCRIPTION (e.g. details on sources, contaminants, historical discharges, waste management and chemical use, threat to public and/or environment)

Two techniques have been used to collect samples at this site. One method of sample collection is from the pump houses where wells have been blended together. The second method is taking samples directly from the individual wells. Contamination is present is both methods of sample collection.

On 7/6/99, 8/23/99, 5/2/00 and 3/8/01 the samples collected at the Underwood pump house had elevated levels of bromoform, and trichloroethene (TCE). On 3/8/01, the Underwood pump house also had elevated levels of tertachloroethene (PCE) and dibromochloromethane. On 7/6/99, the Walton pump house had a level of 0.0006 ppm of bromoform. On 5/2/00, the Walton pump house had elevated levels of bromoform, dibromochloromethane, and tertachloroethene (PCE). On 12/18/00, the Walton pump house had increased levels of bromoform, dibromochloromethane, and tetrachloroethene (PCE), bromodichloromethane and an unidentified compound.

The individual wells that had samples collected were wells A, B, E, G, H, and J. Well B had 0.266 ppm of manganese on 3/28/00. Well E had 0.0007 ppm of methylene chloride (DCM) on 8/23/99. Well G had 0.0581 ppm of manganese on 3/28/00. Well J had 0.0241 ppm of manganese on 3/28/00.

The US EPA National Primary Drinking Water Standards for tetrachloroethylene aka tetrachloroethene (PCE) is 0.005 ppm; trichloroethylene aka trichloroethene (TCE) is 0.005 ppm (Ref 2). On the Agency for Toxic Substances and Disease Registry ToxFAQs, the EPA set 0.1 ppm for bromoform (Ref 4); 0.1 ppm for dibromochloromethane aka chlorodibromomethane (Ref 4); 0.1 ppm for bromodichloromethane; methylene chloride level is 10 ppm for one day or 2 ppm for 10 days in drinking water (Ref 5).

According to 30 TAC, Chapter 290.105(b), the secondary constituent level for manganese is 0.05 ppm (Ref 3).

Please refer to Figure 1 for a tabulated format of sample results.

Figure 1. Table of sample analysis for Kermit Public Water Supply Corporation, all units are ppm, same as mg/l.

	3/8/01 Underwood 001	12/18/00 Walton 002	5/2/00 Walton 002	5/2/00 Underwood 001	8/23/99 Underwood 001	7/6/99 Walton 002	7/6/99 Underwood 001
Chloroform	0.0009	<0.0005	<0.0005	0.0007	0.0007	<0.0005	0.0005
Tetrachloroethene (PCE)	<0.0005	0.0013	0.0006	<0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	0.0009	<0.0005	<0.0005	0.0007	0.0006	<0.0005	0.0006
Bromodichloromethane	<0.0005	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dibromochloromethane	0.0006	0.0016	0.0007	<0.0005	<0.0005	<0.0005	<0.0005
Bromoform	0.003	0.0022	0.001	0.0016	0.0014	0.0006	0.0009

Wells A, B, D, E, and H pump to Underwood, while wells F, G, I, J, L, M, and N/O pump to Walton

	3/28/00 Well B	3/28/00 Well G	3/28/00 Well J
Manganese	0.266	0.0581	0.0241

	5/2/00 Houston/ Cedar Well M	8/23/99 Magnolia & Halley Well E	8/23/99 Texas & Kermit Well H	8/23/99 Underwood & Halley Well A	8/23/99 Arkansas & Halley Well B	MCLs as of EPA July 2002
Methylene chloride (DCM)	<0.0005	0.0007	<0.0005	<0.0005	<0.0005	2.0
Tetrachloroethene (PCE)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.005
Trichloroethene (TCE)	<0.0005	<0.0005	0.0009	<0.0005	<0.0005	0.005
Bromodichloromethane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.1*
Dibromochloromethane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.1*
Bromoform	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.1*
Chloroform	<0.0005	<0.0005	0.0001	<0.0005	<0.0005	0.1*

*MCL for total Trialomethanes which include chloroform, bromodichloromethane, dibromochloromethane and bromoform.

8.0007

5.0 SITE FEATURES

Potential Waste Sources:

	Ponds, Lagoons, Surface Impoundments		Drums
	Contaminated Soil		Pits
	Transformers		Landfills
	Waste Piles	X	No Sources Identified
	Storage Tanks (above & below)		Other

Describe sources and releases (e.g. #drums, size of impoundment, leaking drums, ruptured tank, containment)
There is one dry cleaners named Quality Cleaners within Kermit City Limits. According to the owner, Paul Bentley, the cleaners use a petroleum based solvent to clean the clothes they receive from area residents. Quality Cleaners is located about one-half mile from wells A, B, D, E, H, L, and M. There is an automotive repair shop located within one-quarter mile of Well A, D, E, F, and N/O. Two other automotive repair shops located within one-half mile of wells L and M. There was no evidence of hazardous substances being disposed, stored or treated at the City of Kermit Public Water Supply Corporation.

6.0 TARGETS

Describe targets and proximity to wastes (lagoon draining to creek, 10 homes within 200 feet, stressed vegetation and contamination at homes, SW intakes, nearest public and private drinking water wells, etc.)
The City of Kermit PWS has 2,357 connections serving 5,714 people (Ref 8). Wells A, B, H, I, and J are located in areas without residences, while wells E, F, L, M, and N/O are located within 200 feet of residential homes. Well D is situated within Winkler County Cemetery and well G is located in Winkler County Park. There are no surface water intakes in Kermit and almost all of the residents are on public water. The few wells on residential properties are used for irrigation and would be approximately 60 feet deep according to Mr. Freddie Mac Jones. The depth to water in the Kermit area is about 50 feet. There are four schools with total of approximately 1500 students located within four miles of the City of Kermit Public Water Supply Corporation.

10.0 REFERENCES

1 Drinking Water Quality Report (Consumer Confidence Report). City of Kermit. 2000. 6 pages.

2 National Drinking Water Standards. United States Environmental Agency. July 2002. 4 pages.

3 Summary of Secondary Standards. Texas Administrative Code, Chapter 290.105(b). September 13, 2000. 2 pages.

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5 Methylene Chloride. Division of Toxicology ToxFAQS. Agency for Toxic Substances and Disease Registry February 2001. 2 pages.

6 Texas Natural Resource Conservation Commission letter to Ted Westmorland, City of Kermit. Public Drinking Water Well Location, PWS 2480001. August 14, 2001. 4 pages.

7 Water System Data Sheet. PWS 2480001, City of Kermit. Texas Commission on Environmental Quality. October 23, 2002. 4 pages.

Reference 9

Mustang Enterprises LTD.

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Washers:

- *Dexter*
- *Edro/Dynawash*
- *Wascomat*
- *GE*
- *Cissell*
- *IPSO coin-op*
- *Milnor OPL*
- *Milnor coin-op*

Dry Cleaning Machines:

- *Forenta*
- *Columbia*

Boilers/Water Heaters:

- *Columbia*
- *Williams and Davis*
- *Fulton*
- *Lattner*
- *Natco Water Heaters*
- *Hamilton Water Heaters*
- *Parker*
- *Cleaver Brooks*

Chillers:

- *American Chiller*
- *Aqua Products*

9,0001

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- Unipress
- Hoffman / New Yorker
- Veit
- Trevil

- Master Chiller
- Rite Temp
- Forenta
- KR Products

Conveyors:

- White
- Saratoga
- Iowa Techniques
- Speed Check
- Railex

Associated Items:

- Champion Air Compressors
- Rema Vacuum
- Papalini Counters
- Starch Cookers

9.0002

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9.0003

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Reference 10

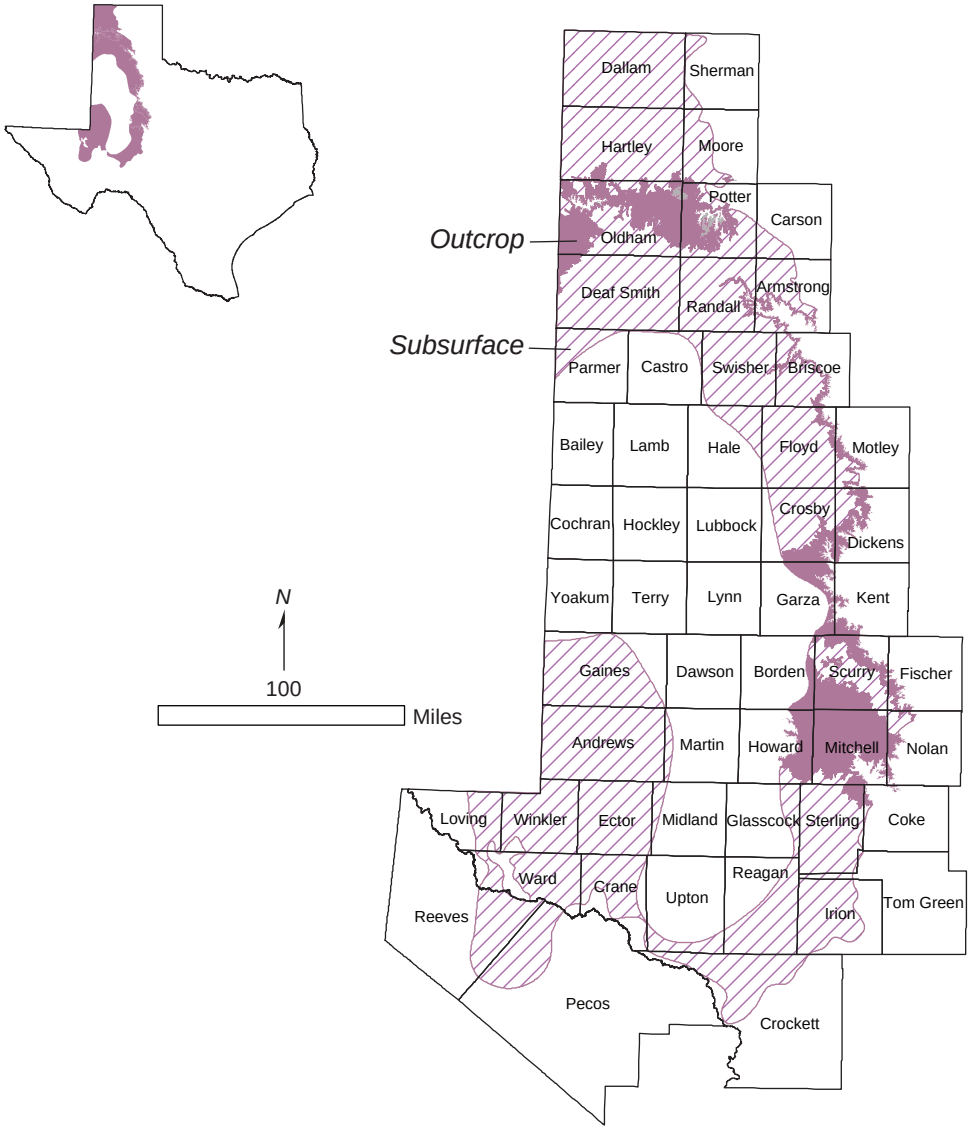
Aquifers of Texas

by Peter G. George, Ph.D., P.G. • Robert E. Mace, Ph.D., P.G. •
Rima Petrossian, P.G.

Report 380
July 2011

Texas Water Development Board
www.twdb.texas.gov

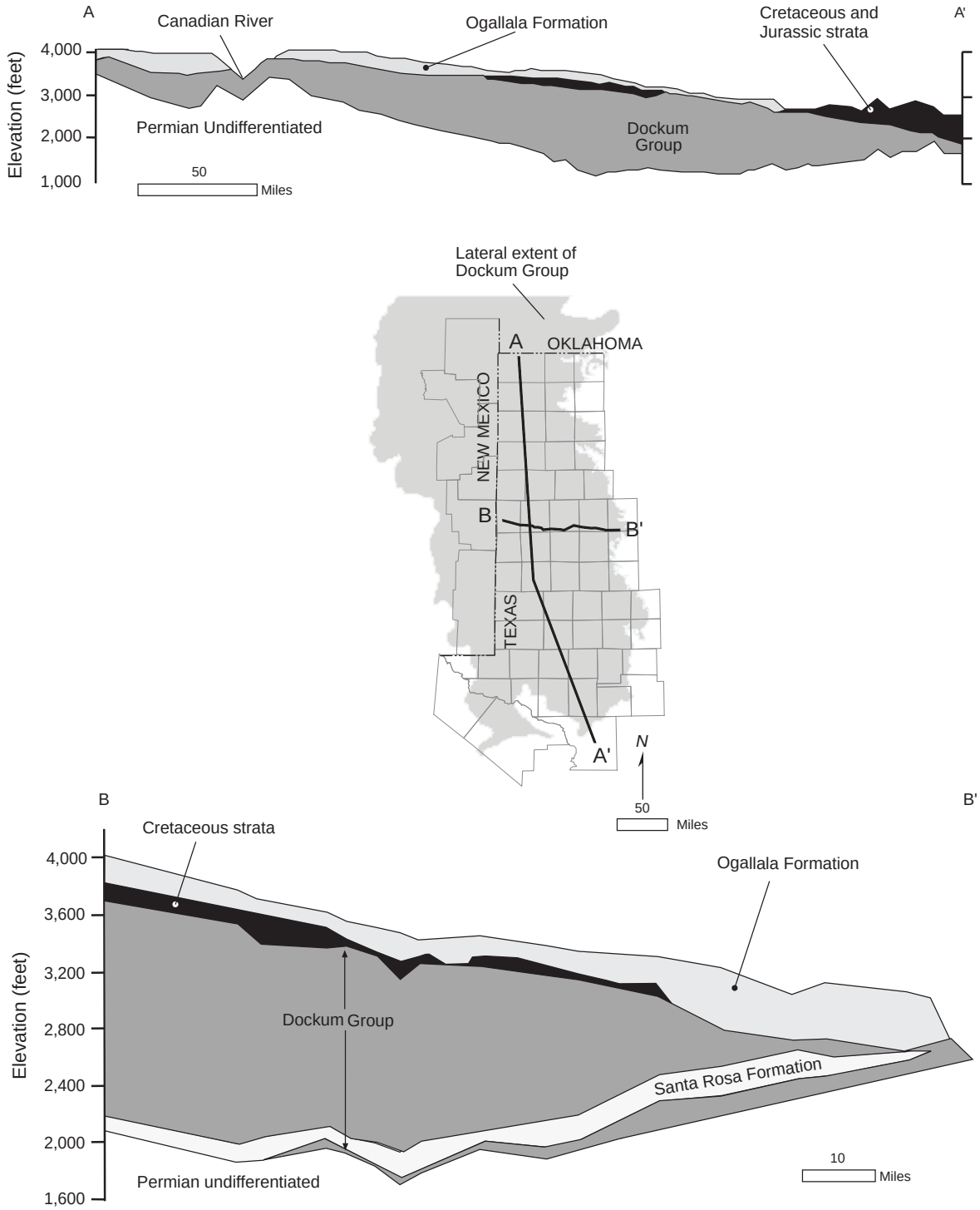
Dockum
Aquifer



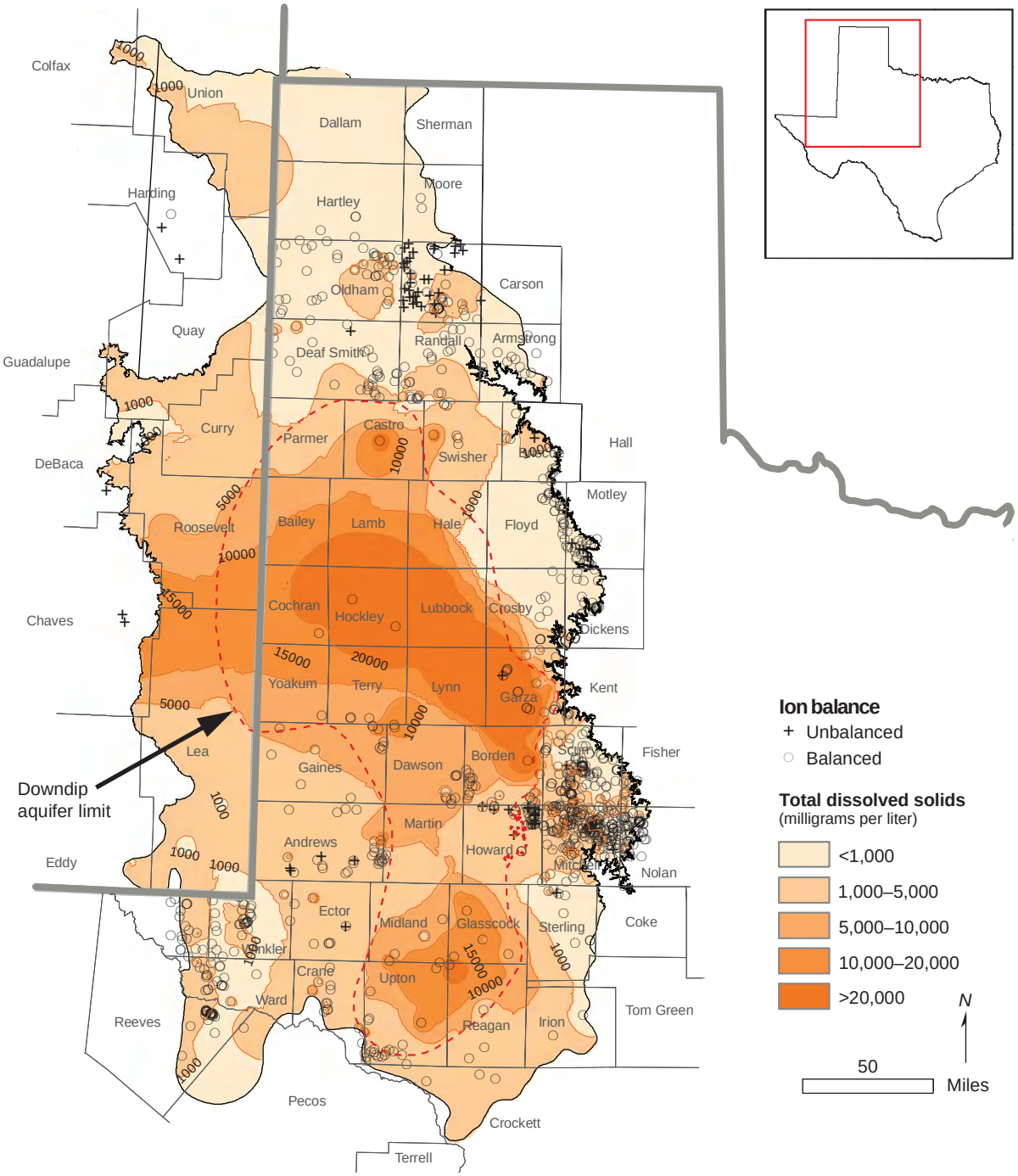
The Dockum Aquifer
is a minor aquifer found in the northwest part of the state. It is defined stratigraphically by the Dockum Group and includes, from oldest to youngest, the Santa Rosa Formation, the Tecovas Formation, the Trujillo Sandstone, and the Cooper Canyon Formation. The Dockum Group consists of gravel, sandstone, siltstone, mudstone, shale, and conglomerate. Groundwater located in the sandstone and conglomerate units is recoverable, the highest yields coming from the coarsest grained deposits located at the middle and base of the group. Typically, the water-bearing sandstones are locally referred to as the Santa Rosa Aquifer. The water quality in the aquifer is generally poor—with freshwater in outcrop areas in the east and brine in the western subsurface portions of the aquifer—and the water is very hard. Naturally occurring radioactivity from uranium present within the aquifer has resulted in gross alpha radiation in excess of the state's primary drinking water standard. Radium-226 and -228 also occur in amounts above acceptable standards. Groundwater from the aquifer is used for

10.0002

irrigation, municipal water supply, and oil field waterflooding operations, particularly in the southern High Plains. Water level declines and rises have occurred in different areas of the aquifer. The regional water planning groups, in their 2006 Regional Water Plans, recommended several water management strategies that use the Dockum Aquifer, including new wells, desalination, and reallocation.

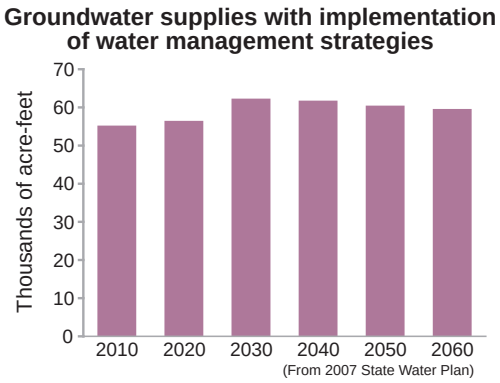


Geologic cross sections along (A-A') and across (B-B') the Dockum Aquifer (modified from Bradley and Kalaswad, 2003).



Total dissolved solids in groundwater from the Dockum Aquifer (from Ewing and others, 2008). mg/l=milligrams per liter

10.0004



Aquifer characteristics

- Area of outcrop: 3,519 square miles
- Area in subsurface: 21,992 square miles
- Proportion of aquifer with groundwater conservation districts: 55 percent
- Number of counties containing the aquifer: 46

References

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McGowen, J.H., Granata, G.E., and Seni, S.J., 1979, Depositional framework of the Lower Dockum Group (Triassic), Texas Panhandle: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations No. 97, 60 p.

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The Dockum Aquifer (Tecovas Formation) in Palo Duro Canyon.

10.0005

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TEXAS BOARD OF WATER ENGINEERS

Durwood Manford, Chairman
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BULLETIN 5916

GEOLOGY AND GROUND-WATER RESOURCES OF WINKLER COUNTY, TEXAS

By

Sergio Garza, Hydraulic Engineer
United States Geological Survey

and

John B. Wesselman, Geologist
Texas Board of Water Engineers

Prepared in cooperation with the United States Geological Survey
and Winkler County

November 1959

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GEOLOGY AND GROUND-WATER RESOURCES OF WINKLER COUNTY, TEXAS

By

Sergio Garza, Hydraulic Engineer, U. S. Geological Survey
and
John B. Wesselman, Geologist, Texas Board of Water Engineers

November 1959

ABSTRACT

Winkler County is in West Texas adjacent to the southeast corner of New Mexico. Most of the county lies in the Pecos River Valley; the remainder, the northeast portion, is part of the High Plains. Its principal industries are those related to the production and refining of oil, but ranching is also of importance. The county has an arid to semiarid climate, an area of about 887 square miles, and a population of about 12,000, in 1957.

The principal fresh-water-bearing formations in Winkler County are the Cenozoic alluvium which mantles the surface of most of the county, and the Santa Rosa sandstone of Late Triassic age. The alluvium is saturated at a depth ranging from a few feet below the land surface to about 150 feet, and the ground water is unconfined. The Santa Rosa sandstone is fully saturated throughout most of the county, the water occurring under both unconfined and confined conditions. The underlying older formations contain water too highly mineralized for most uses, but they are important because water from these underlying beds, which is produced with oil, is a source of pollution to the fresh-water aquifers. The formations also are a source of water to waterflooding projects for the secondary recovery of oil.

The alluvium is replenished chiefly by precipitation throughout the county. The sand-dune area in the eastern part is the most favorable area of natural recharge. The Santa Rosa sandstone is recharged through the alluvium where the two formations are in contact.

Infiltration of saline water that has been produced with oil and waste water from industrial plants has been taking place through surface earthen pits. About 18 mgd (million gallons per day) of saline water was being produced from the many oil fields throughout the county during August 1957, and almost all this water was placed in surface pits. The Hendrick oil field alone was producing about 14.5 mgd during that month; an estimated 800,000 acre-feet was produced from this field from 1937 to 1957.

Approximately 20 million acre-feet of fresh water is stored in the explored ground-water aquifers of Winkler County, of which an estimated 5 to 7 million acre-feet can be practicably recovered. A daily average of about 8.2 million gallons (9,200 acre-feet per year) of fresh water was used in the county during 1956. Public and industrial use accounted for about 6.8 mgd; irrigation, domestic, and stock uses accounted for 1.4 mgd. Projects engaged in the secondary recovery of oil were the largest consumers, using an average of about 3 mgd of fresh water and about 2.7 mgd of saline water during 1956.

Water wells drilled in the deep trough of Cenozoic alluvium south of Wink may yield 1,000 gpm (gallons per minute or more). A pumping test of the alluvium in that area indicated a coefficient of transmissibility of about 25,000 gpd (gallons per day) per foot. Wells, other than windmill wells, drawing water from thinner sections of alluvium in the rest of the county yield between 100 and 300 gpm. Most of the wells in the Santa Rosa sandstone yield between 30 to 400 gpm. Two municipal wells at Kermit tapping the Santa Rosa sandstone had test yields of 1,200 and 1,875 gpm. The large yield of these wells probably results from the presence of fractures in the structurally deformed aquifer. Pumping tests in the Kermit area indicate that locally a full section of the Santa Rosa sandstone has an average coefficient of transmissibility of about 25,000 gpd per foot and a coefficient of storage of about 0.0003. The transmissibility in two other tested areas is much less.

The chemical quality of the water in the principal aquifers is generally acceptable for industry and for public supply. About two-thirds of the samples collected from fresh-water wells had a dissolved-solids content of less than 1,000 ppm (parts per million); however, some samples in a few areas were hard and high in fluoride and silica. Samples from wells in polluted areas contained dissolved solids ranging from about 1,400 to 71,100 ppm. Two comprehensive analyses of water samples from the Rustler formation showed a dissolved-solids content of 18,400 ppm and 157,000 ppm. In most of the water produced with the oil in the Hendrick oil field, the content of dissolved solids ranged from about 4,000 to about 10,000 ppm. The water produced with the oil in the rest of the oil fields in Winkler County was mainly brine.

INTRODUCTION

Purpose and Scope

In 1956 an investigation of the ground-water resources of Winkler County was begun through a cooperative agreement among the U. S. Geological Survey, the Texas Board of Water Engineers, and the Commissioners' Court of Winkler County. The purpose was to obtain information as to the source, occurrence, utilization, quantity, and quality of ground water in the county. As the work progressed, the pollution of ground water by oil-field waste water through surface pits became a principal subject of study.

Field data were gathered from September 1956 through September 1957 and included records of 747 wells (see table 7) and 176 drillers' logs (see table 8). The table of well records includes 189 altitudes of water wells determined by the U. S. Geological Survey, 198 altitudes of oil and water wells furnished by oil companies, and records of 136 oil tests and oil wells. All electric and radioactivity logs used in this study have been placed in the permanent file of well logs maintained by the Texas Board of Water Engineers. Pumping tests were made on wells to determine the hydraulic properties of the aquifers. The water samples collected in 1956 and 1957 were analyzed in the laboratory of the Geological Survey in Austin. The table of 167 chemical analyses of water from wells in Winkler County (see table 9) includes 25 made by the Works Progress Administration in 1940 (Forbes and others, 1941, p. 31-35), although they were made by methods that are not sufficiently accurate for the results to be closely comparable to those of later analyses. Chemical analyses of saline water produced by oil wells, mostly made by commercial laboratories, are compiled in table 6.

The study was made under the direct supervision of R. W. Sundstrom, district engineer in charge of ground-water investigations in Texas.

Acknowledgments

Appreciation is expressed to all who contributed information and assistance in the field and in the preparation of the report. City officials of Kermit and the Commissioners' Court of Winkler County provided manpower and equipment on several occasions; the Court also furnished office space. Oil companies furnished records, including pumpage data and altitudes, of both water and oil wells. Particular recognition is due the geologic staff of Magnolia Oil Company's Midland office for technical assistance and access to its log file. The water-well drillers and the ranchers of the area gave free access to their records.

Previous Investigations

An inventory of water wells in Winkler County was made in 1940 as a project of the Works Progress Administration in cooperation with the Texas Board of Water Engineers and the U. S. Geological Survey (Forbes and others, 1941).

A. H. Dunlap of the State Board of Water Engineers, in 1939, and J. W. Lang of the U. S. Geological Survey, in 1947, made brief field investigations of the ground water in the vicinity of Kermit, but formal reports of the investigations were not made. The results of those studies are incorporated in this report.

Well-Numbering System

In the report by Forbes and others (1941) the wells were numbered consecutively in one series. Those well numbers have since been changed to conform to a grid system designed to facilitate location of the wells (see table 1). In this report the county is divided into separate units by means of grids. Lines of latitude and longitude were used to determine the grids, which constitute a modified 10-minute grid system. The grids are identified by letters of the alphabet, from A through H, starting with the northwest grid and moving in a west-to-east, north-to-south succession. Inside the grids the individual wells are numbered consecutively, beginning in the northwest corner.

Table 1 is an index of previously published well numbers and corresponding numbers in this report.

Location and Economic Development

Winkler County is an 887-square-mile area in West Texas, immediately adjoining the southeast corner of New Mexico. (See fig. 1.) Like Andrews County on the north, Ward County on the south, and Ector County on the east, Winkler County owes its economic importance to the production of oil. Kermit, the county seat and center of the oil industry in the county, had an estimated population of more than 10,000 in 1957; the total county population was estimated at about 12,000.

New oil fields are being developed, and old ones are being restored by new processes of recovery. The production of oil in Winkler County, according to the Railroad Commission of Texas, was 15,661,412 barrels in 1956. Other industries are the production of natural gas, gasoline, liquefied gas products, carbon black, and sulfur. The location of oil fields in Winkler County is shown in figure 2.

Most of the county is used for grazing cattle. Although the severe drought in this area from 1945 to 1957 resulted in the destocking of much rangeland, cattle raising is still an important industry.

Physical Features

Winkler County occupies parts of two sections of the Great Plains physiographic province--the High Plains and the Pecos Valley (Fenneman, 1931, pl. 1). The High Plains, or Llano Estacado, in the northeastern part of Winkler County, is bounded by a westward-facing escarpment called Concho Bluff. The land surface is highest--about 3,400 feet--in the High Plains part of the county. The High Plains gently slope toward the southeast. The nearly flat surface is poorly drained, and large depressions called "playas" are common. Smaller depressions are numerous.

The surface of the rest of the county, the Pecos Valley section, slopes to the southwest and south from Concho Bluff. The altitude in the county is lowest--about 2,670 feet--near the southern edge in the Pecos Valley section.

Surface drainage leaving Winkler County is insignificant. Small gullies head along Concho Bluff, extending to the sandy belt in front of the bluff where

411-00016

Table 1 --Index of previously published[1/] well numbers and corresponding numbers in this report

New	Old	New	Old	New	Old	New	Old
B-10	143	D-181	31	F-2	287	G-21	193
B-15	139	D-185	20	F-3	286	G-49	265
B-20	146	D-186	74	F-5	283	G-66	202
C-2	4	D-204	126	F-6	274	G-76	191
C-18	58	D-205	122	F-11	273	G-78	189
C-20	7	D-208	120	F-15	264	G-112	255
C-21	11	D-209	2	F-16	259	G-120	207
C-22	8	D-235	21	F-22	275	G-122	206
C-25	43	D-236	27	F-23	281	G-129	188
C-33	41	D-257	271	F-25	288	G-136	212
C-34	32	D-269	76	F-26	279	G-138	213
D-4	66	D-270	77	F-27	278	G-139	210
D-5	64	D-273	90	F-29	289	G-140	209
D-9	135	D-275	87	F-30	276	G-141	208
D-23	52	D-279	83	F-32	262	G-146	251
D-39	57	D-285	85	F-41	277	G-150	214
D-41	49	D-307	196	F-43	291	H-15	181
D-42	46	D-309	127	F-44	292	H-16	183
D-57	70	E-22	148	G-7	270	H-24	187
D-101	132	E-23	150	G-11	267	H-25	186
D-135	73	E-24	151	G-18	195	H-26	182
D-180	29	E-32	156	G-19	194	H-80	216

1/ Forbes and others (1941)

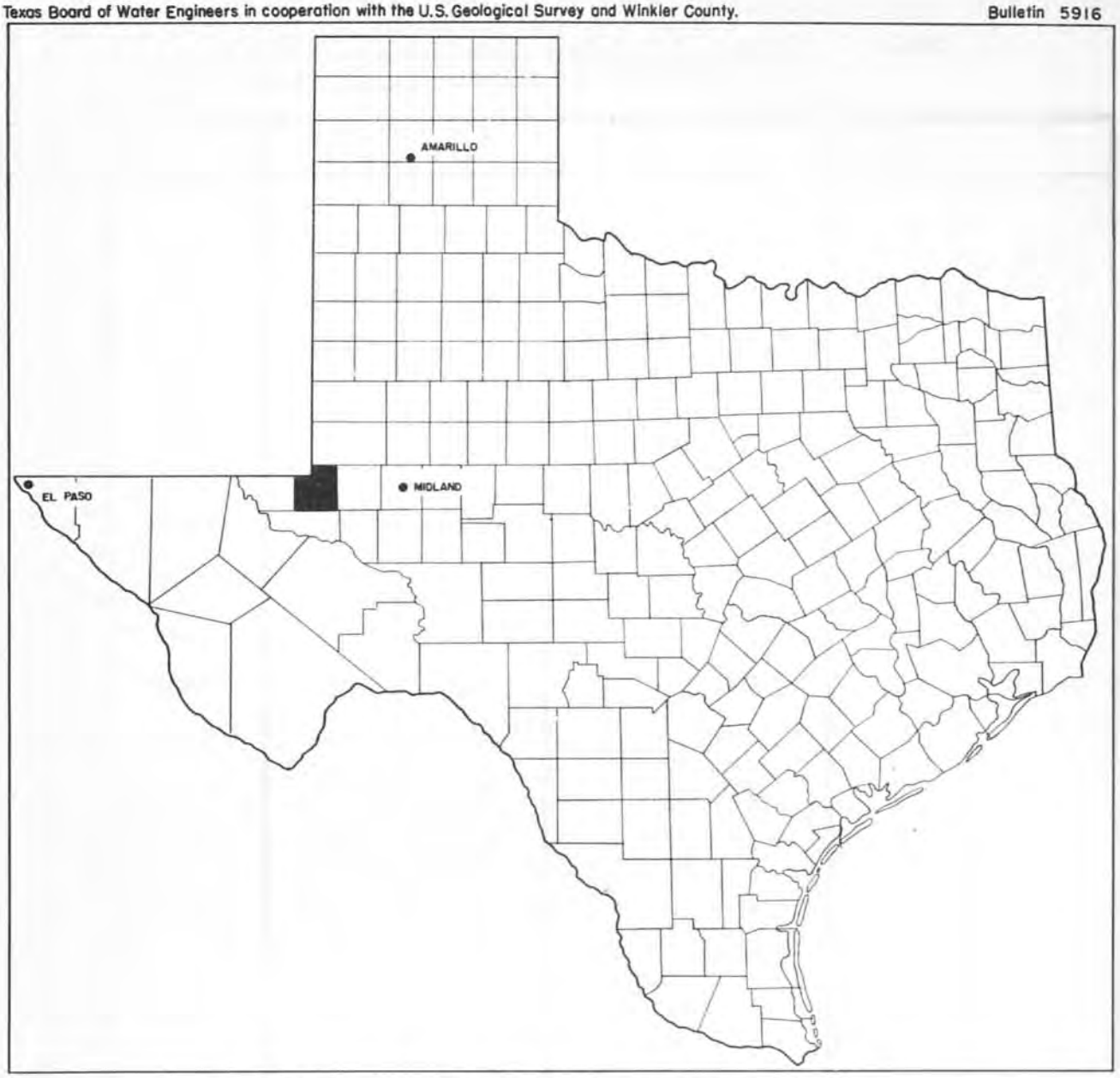

FIGURE 1.— Map of Texas showing location of Winkler County.

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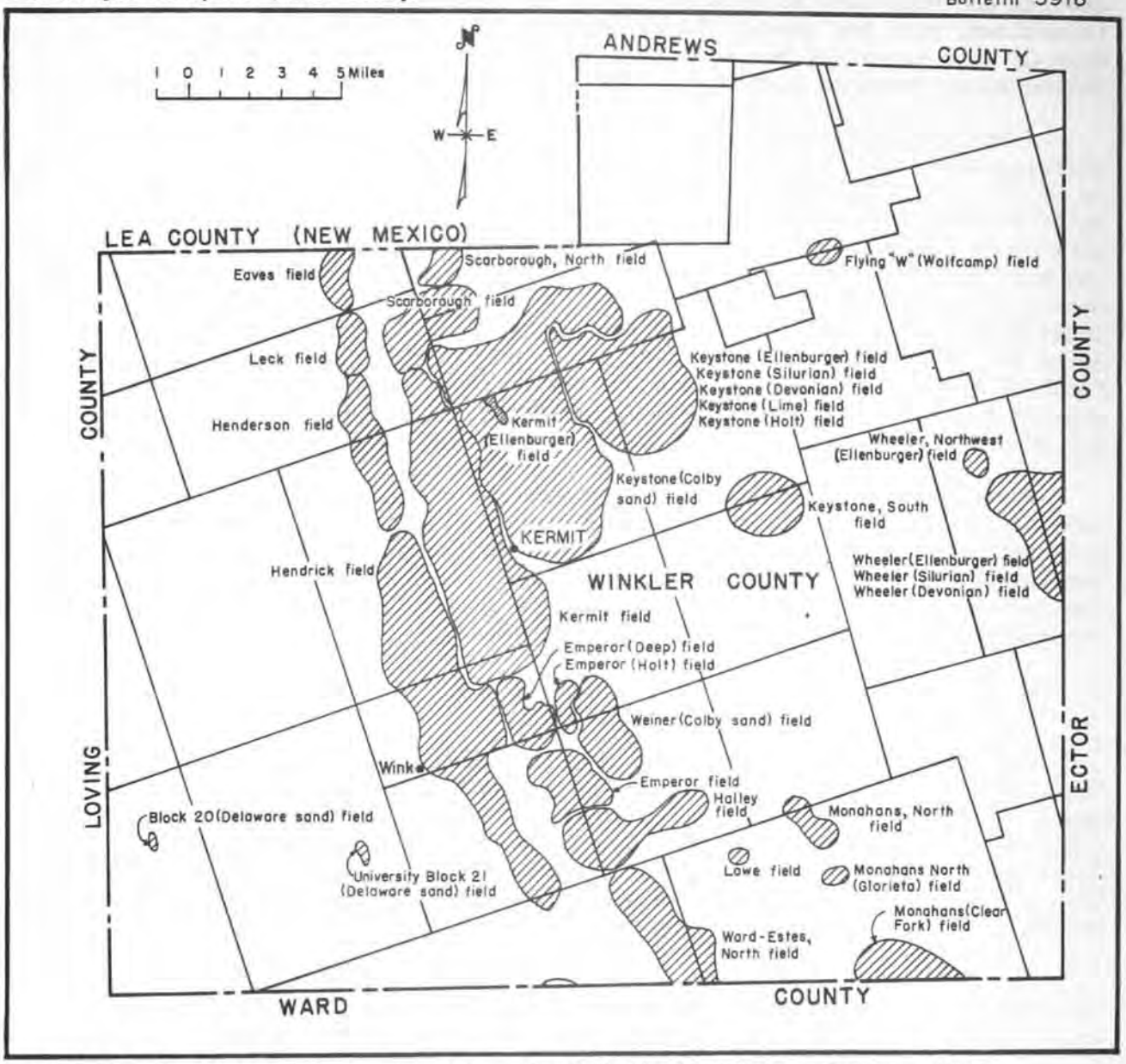


FIGURE 2.–Map showing location of oil fields in Winkler County, Tex.

storm waters quickly infiltrate the sand. Cheyenne Draw and Monument Draw in central and west-central Winkler County are ephemeral and discontinuous. Eolian (windblown) sand has nearly filled Cheyenne Draw where it heads into New Mexico. West of Wink a part of Monument Draw has been dammed, forming a lake into which saline water produced with oil at the Hendrick field has been placed (see pl. 1).

A striking physical feature is the "blow sand" that forms a belt of high, shifting dunes 2 to 4 miles wide extending from the southeast corner of New Mexico to the southeast corner of Winkler County. This is a part of a wider sandy belt, 8 to 15 miles wide in Winkler County, that extends into New Mexico and into Crane County, Tex. Within the area covered principally by active sand dunes, and west of the dunes also, captured dune sand supports sparse vegetation. In some places wind action has removed all free sand from caliche-indurated surfaces, leaving shallow depressions known as "blowouts." The sand dunes rise as much as 30 to 40 feet above the surrounding land surface. At many places along the west flank of the area, where the dune surface and the water table almost intersect, growths of willow trees and wild plum thickets abound. Frequently, waterholes are excavated below the water table in these areas to provide water for drilling.

The surface west of the belt of sand dunes is gently rolling to level and consists of caliche-indurated sand and some silt and gravel. The gravel is found principally in small lag-gravel deposits on the surface. Large sinkholes are present in the High Plains part of the county and near the west border. A discontinuous ridge along the west boundary is attributed to the burial of an escarpment of Triassic rock by Cenozoic alluvium.

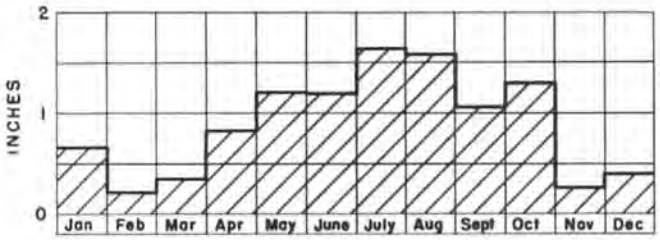
Climate

The climate of Winkler County is arid to semiarid, being too dry for farming without irrigation. The average mean annual temperature is 63°F. The mean annual precipitation is only about 13 or 14 inches. Precipitation data for the stations at Wink, Texas, and Jal, New Mexico, which is 18 miles north of Kermit, are shown on figure 3. In order to assume a complete record for the Wink station in 1941, 5 inches was estimated for the month of June by comparing the Jal record of that month.

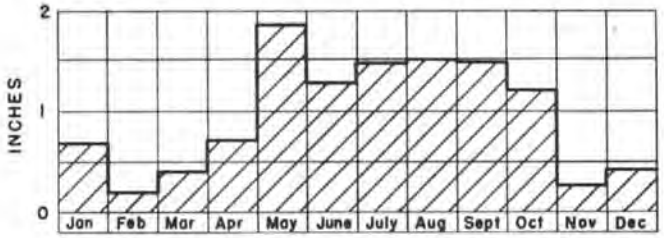
The short period of record (1941-56) includes the drought years 1945-56. In order to relate the averages obtained for the short periods of record to longer, more representative averages for the county, the averages at the Fort Stockton (Pecos County) and Pecos (Reeves County) stations for the same period (1941-56) were compared to averages for longer periods of record at these stations. The averages for the shorter period (1941-56) were found to be approximately 2 inches less than for the period of record at the Fort Stockton station and approximately 3 inches less than for the period of record at the Pecos station. The averages shown for the Wink and Jal stations probably are between 2 and 3 inches below what they would be if longer, more representative periods of record were available.

GENERAL GEOLOGY

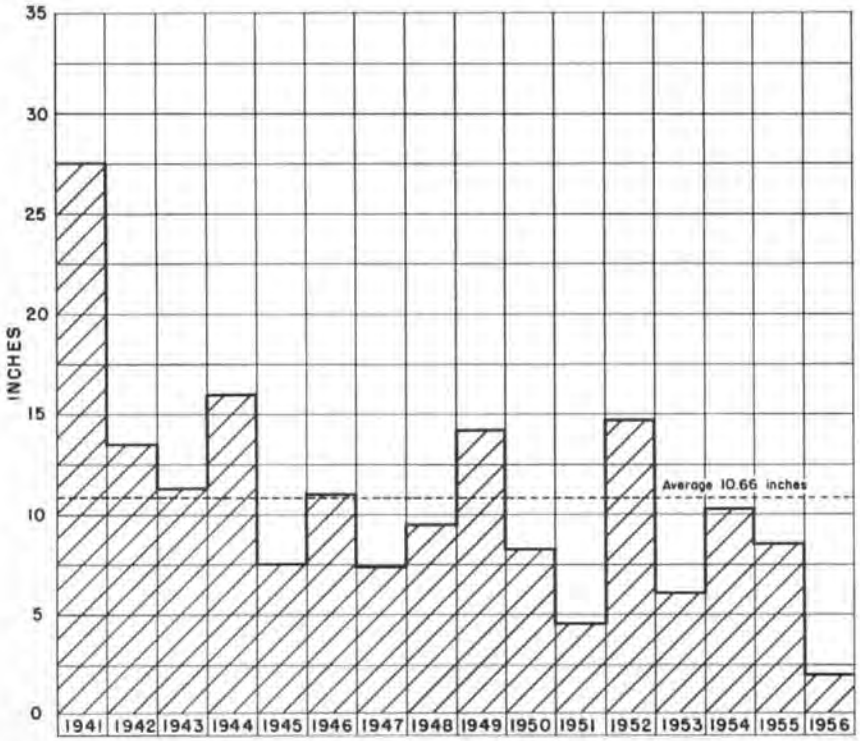
The oldest explored rocks in Winkler County are igneous rocks approximately 10,000 feet below the surface in the Keystone oil field, about 4 miles northeast of Kermit. Sedimentary rocks of Ordovician, Silurian, Devonian, Mississippian, Pennsylvanian, Permian, Triassic, Cretaceous, and Tertiary ages are shown by



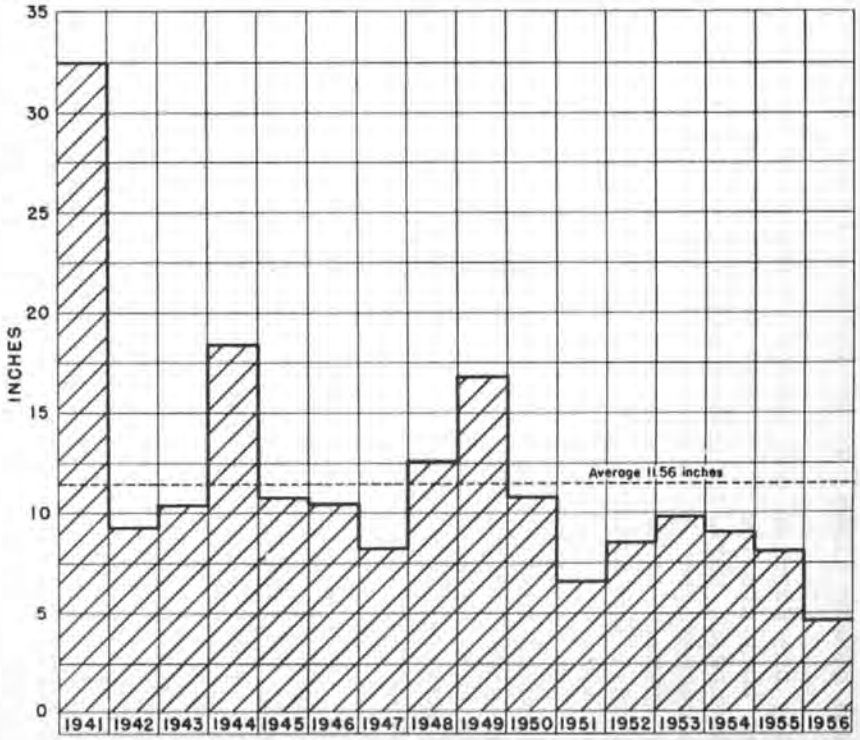
A. Average monthly precipitation, Wink, Tex.



C. Average monthly precipitation, Jal, N. Mex.



B. Annual precipitation, Wink, Tex.



D. Annual precipitation, Jal, N. Mex.

FIGURE 3.-Graphs showing monthly and annual precipitation at Wink, Tex., and Jal, N. Mex.

11.00021

(From records of U. S. Weather Bureau.)

Jones and others (1949) to be present in the subsurface.

Only the Permian and younger formations are discussed in detail in this report, as they are the principal sources of ground water in Winkler County. Their age, thickness, physical characteristics, and importance as sources of water supply are summarized in table 2. All water-bearing formations are discussed in greater detail in the section on geologic formations and their water-bearing properties. The areas of outcrop of the Cretaceous and younger rocks are shown on plate 1.

A southward-trending structural high, to which Cartwright (1930, p. 970) gave the name Central Basin Platform, divides the Permian Basin of West Texas into two sub-basins--the Delaware on the west and the Midland on the east. The western quarter of Winkler County overlies the east rim of the Delaware Basin. The rest of the county overlies part of the Central Basin Platform. (See fig. 4.)

A large reef known as the Capitan, deposited along the margins of the Delaware Basin in late Guadalupe time, caused contemporaneous deposition of three different sequences of rocks: a deep-water marine facies in the Delaware Basin, represented by sandstone, shale, and limestone; a reef zone, represented by massive crystalline dolomite or limestone; and shelf or lagoonal deposits, represented by fossiliferous limestone and shale, dolomitic limestone, saline evaporites, and onshore clastics. The shelf deposits are characteristically thin-bedded dolomite or limestone near the reef, grading into evaporites and clastics away from the reef. The Capitan limestone represents the reef deposits. The back-reef deposits are represented by the Grayburg, Queen and Seven Rivers formations, the Yates sandstone and the Tansill formation of the Whitehorse group. In the Delaware Basin the sandstones of Guadalupe age are succeeded by the anhydrite of the Castile formation of Ochoa age.

The Castile, Salado, and Rustler formations, and Dewey Lake red beds of the Ochoa series record the end of Permian deposition in the Delaware Basin. The Central Basin Platform and other back-reef areas were probably above or near sea level during the deposition of the Castile formation, a sequence of evaporites in front of the Capitan reef. After the deposition of the Castile, the sedimentary rocks of the Salado formation were deposited in the Delaware Basin and across the Central Basin Platform. This widespread deposition of evaporites, alternating at intervals with limestone, dolomite, shale, and sand, continued through Salado and Rustler time. Like the Salado, the Rustler formation was deposited in both the Delaware Basin and the shelf area. The evaporites were overlain by the Dewey Lake red beds, the youngest rocks of the Ochoa series.

According to King (1942, p. 763), "After Ochoa time, a long interval of nondeposition ensued in West Texas, and the region was probably land. Deposition did not begin again until late Triassic time, when the Dockum group was laid down."

The deposition of the Dockum group is recorded by the terrestrial sediments of the Tecovas and Santa Rosa formations, and Chinle the formation equivalent. The Dockum sediments are the last record of Triassic deposition in the area.

Rocks of Early Cretaceous age record the next deposition in Winkler County. Sands of the Trinity group unconformably overlie rocks of the Triassic Dockum group. The youngest Cretaceous beds are marine limestones of the Fredericksburg

11.00022

Table 2.--Stratigraphic units and their water-bearing properties in Winkler County, Tex.

Era	System	Series or group		Stratigraphic unit	Approximate thickness (feet)	Character of rocks	Water-bearing properties
Cenozoic	Quaternary			Dune sand	0- 250	Windblown sand.	Principally a recharge facility for underlying formations. Furnishes small supplies of fresh water, principally from pits.
	Quaternary and Tertiary			Alluvium	0-1,050	Unconsolidated sand, gravel, silt, clay, and caliche.	Water ranges from fresh to slightly saline. Yields range from few gallons per minute to more than 1,000 gpm.
Mesozoic	Cretaceous	LOWER CRETACEOUS	Fredericksburg group		0- 50	Gray to cream and brown hard to earthy fossiliferous sandy marine limestone.	Not an aquifer in Winkler County.
			Trinity group		0- 100	Sandstone, siltstone, conglomerate, and gravel.	Yields small quantities of water of good chemical quality in extreme northeastern part of county.
	Triassic	Dockum group		Chinle formation equivalent	0-1,000	Brick-red to maroon and purple shale, thin beds of fine red or gray sandstone and siltstone.	Not known to yield water to wells in Winkler County.
				Santa Rosa sandstone	0- 350	Reddish-brown and gray medium- to coarse-grained crossbedded arkosic, micaceous, and conglomeratic sandstone, interbedded with red and green shale.	Yields small to large quantities of fresh to slightly saline water.
				Tecovas formation	0- 270	Red shale, siltstone, and very fine-grained sandstone.	Not known to yield water to wells in Winkler County.

11.00023

Table 2.--Stratigraphic units and their water-bearing properties in Winkler County--Continued

Era	System	Series or group	Stratigraphic unit	Approximate thickness (feet)	Character of rocks	Water-bearing properties
Paleozoic	Permian	Ochoa series	Dewey Lake red beds	230- 580	Thin-bedded siltstone cemented with gypsum and calcite.	Not known to yield water to wells in Winkler County.
			Rustler formation	300- 500	Dolomite, anhydrite, and limestone, basal zone of sand, conglomerate, and variegated shale.	Yields highly saline water or brine.
			Salado formation	400-2,000	Mostly salt (halite); subordinate amounts of anhydrite, sylvite, and orange polyhalite.	Not known to yield water to wells in Winkler County.
			Castile formation	0-1,700	Calcareous anhydrite, some salt.	Do.
		Whitehorse group of Guadalupe series	Tansill formation	0- 200	Dolomite, some anhydrite and salt.	Do.
			*CAPITAN LIMESTONE: Yates sandstone	0- 300	Gray and red sandstone, a few thin beds of dolomite, and red and gray shale.	Yields small quantities of brine in conjunction with oil production.
			*CAPITAN LIMESTONE: Seven Rivers formation	0- 550	Anhydrite, red sandstone, shale, and dolomite.	Yields large quantities of moderately saline water.
			*CAPITAN LIMESTONE: Queen formation	0- 400	Red and gray sandstone interbedded with dolomite and some anhydrite and salt.	Not known to yield water to wells in Winkler County.
			*CAPITAN LIMESTONE: Grayburg formation	0- 300	Dolomite, red and gray sandstone, and some anhydrite.	Probable source of large quantities of moderate-16 saline water to deep wells between Kermit and Wink.
			*Capitan limestone	0-2,000	Reefy limestone and dolomite.	Not known to yield water to wells in Winkler County. Probably capable of yielding large quantities of moderately saline water.

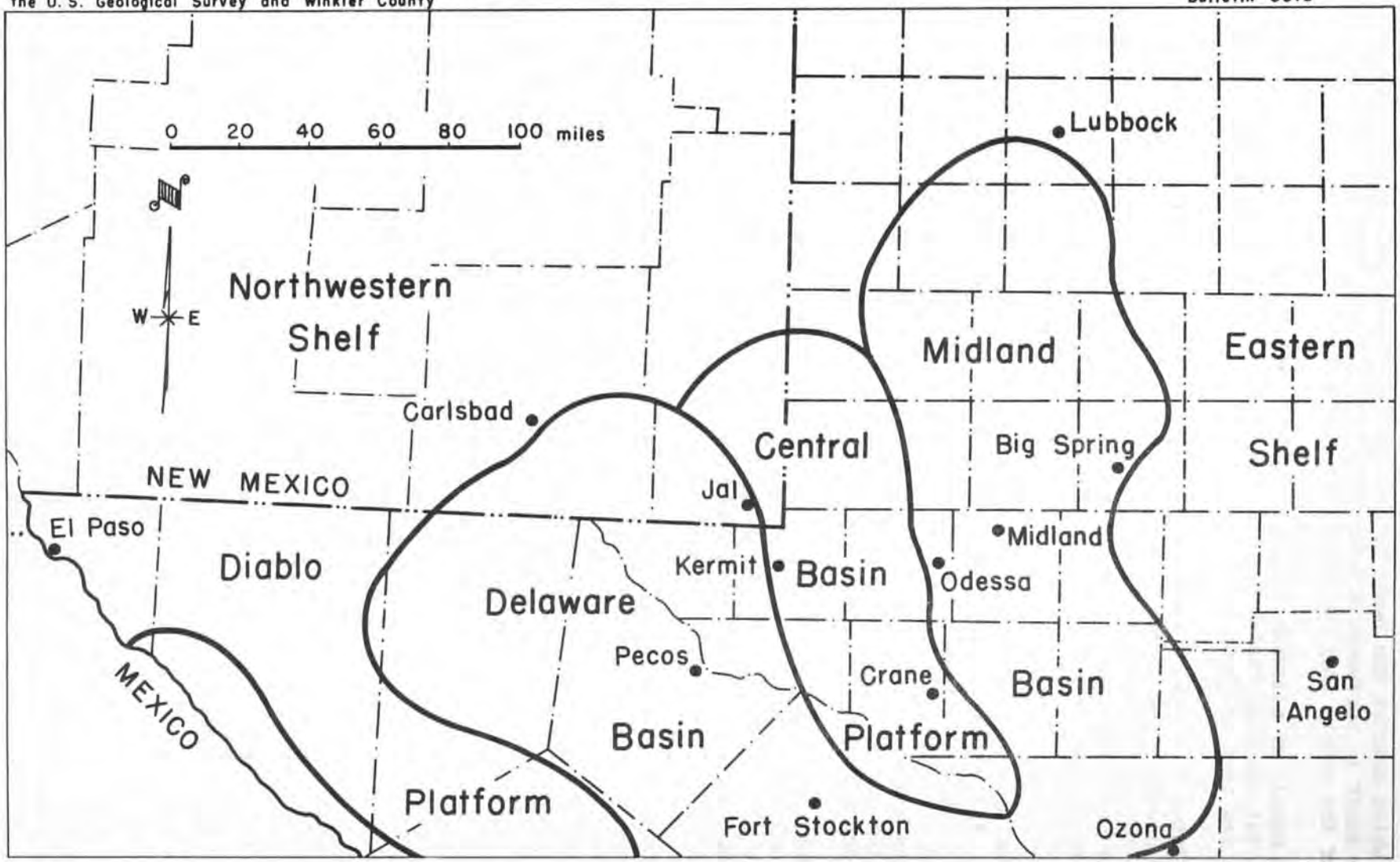


FIGURE 4.- Map of parts of west Texas and New Mexico showing Permian structural features.

group which overlie the basal Trinity group. The Cretaceous rocks crop out in Concho Bluff in northeast Winkler County and underlie the High Plains, but in the rest of the county they have been removed by erosion.

A mantle of alluvium and dune sand of Cenozoic age overlies the older rocks in all but the High Plains part of the county. The deposits range in thickness from a few feet to about 1,050 feet.

Plates 2, 5, and 6 show the structural relations of the water-bearing rocks of the county. The sharp lithologic break at the contact of the anhydrite bed at the top of the Rustler formation with the overlying Dewey Lake red beds is readily distinguishable in mechanical and drillers' logs. This contact was used in preparing the structural contour map of the top of the Rustler formation (see pl. 3).

The base of the Santa Rosa sandstone, 300 to 850 feet above the top of the Rustler formation, marks the deepest occurrence of fresh water in most of Winkler County. Its contact with the underlying Tecovas formation is readily distinguished in mechanical logs. By using the altitudes determined from the mechanical logs and by interpolating from the Rustler structure where the contact was indistinct or absent, a structural contour map of the base of the Santa Rosa sandstone (see pl. 4) was prepared.

Drillers' logs and mechanical logs were used in preparing two east-west cross sections (see pls. 2 and 5) and one north-south cross section (see pl. 6) showing the structure from the surface to the Rustler formation. Two other cross sections (see figs. 5 and 6), having an expanded horizontal scale, show the same stratigraphic interval in the vicinity of Kermit.

The contour map and the cross sections show two major structural features which are probably related to the same crustal deformation. Post-Triassic crustal movements formed a structural high along the east rim of the Delaware Basin and fractured the rocks overlying the soluble salts of the Ochoa series. The rock fractures provided channels for ground water to circulate in the underlying sediments and thus dissolve part of them. The overlying beds collapsed into the voids created by the removal of the soluble salts, forming a slumpage trough (Adams and Frenzel, 1950, p. 301). The trough, about 5 to 10 miles wide in Winkler County, is shown on the cross sections and structural maps (see pls. 2-5). The east edge of the trough approximately overlies the buried Capitan reef. The axis of the trough trends generally south, extending from New Mexico through the western part of Winkler County into Ward County on the south.

Because the collapsed beds in the trough were more susceptible to erosion than those away from the trough, a stream channel developed in them before the Cenozoic alluvium was deposited. The head of the channel was to the north and the channel drained to the south. This is seen by comparison of the two east-west cross sections, A-A' (see pl. 2) and B-B' (see pl. 5). The deepest erosional surface separating the Cenozoic rocks from the Triassic rocks in the northernmost cross section A-A' is 2,270 feet above sea level at well C-3. The deepest erosional surface in the southernmost cross section B-B' is about 1,670 feet above sea level at well G-144. Buried tributary channels in the erosional surface drain toward the slumpage trough. One such tributary channel or system of channels is suggested by the formational relationships shown by the logs of well D-10 and the adjoining wells on cross section A-A' and by the logs of well G-79 and its adjoining wells on cross section B-B'.

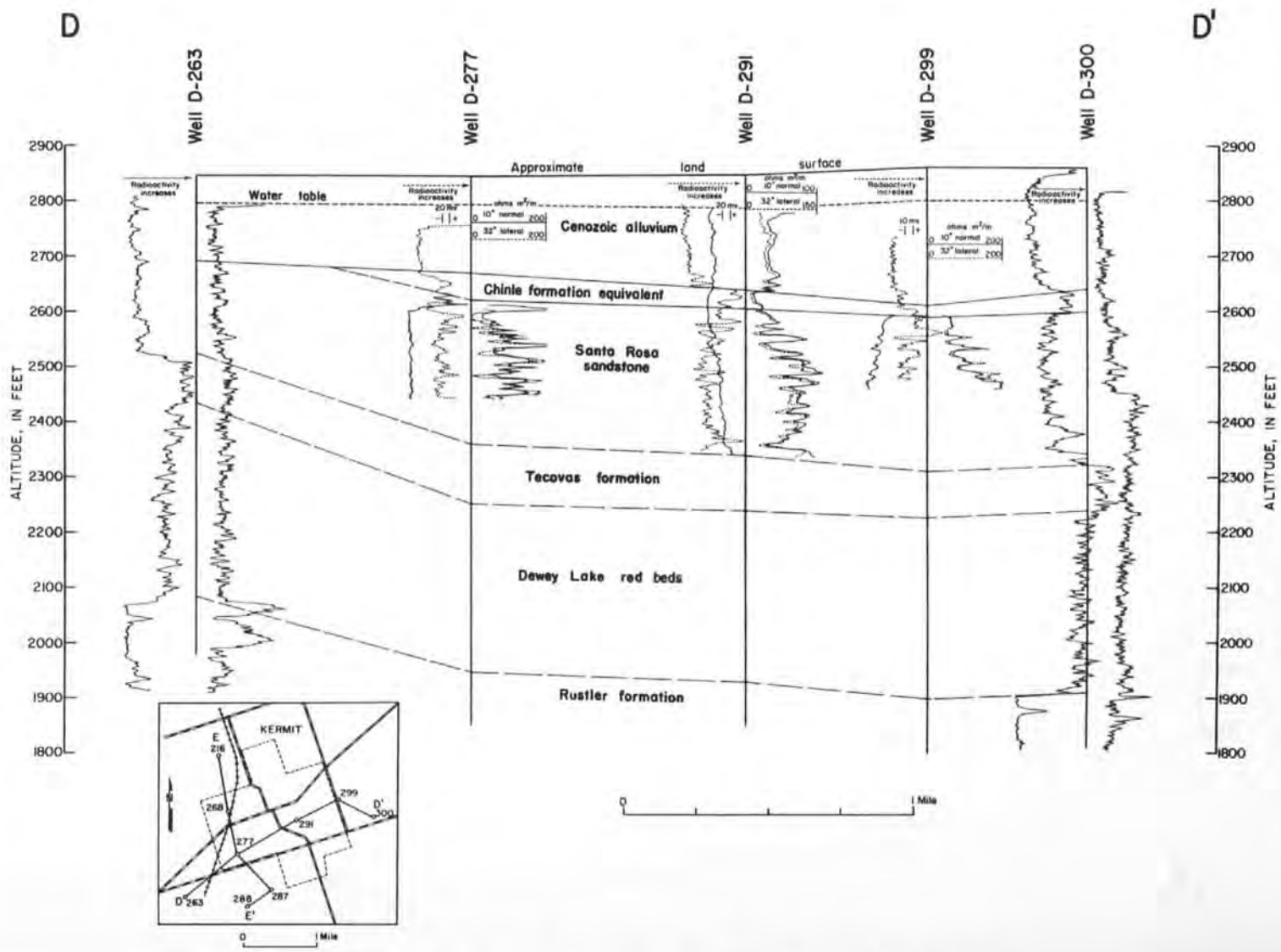
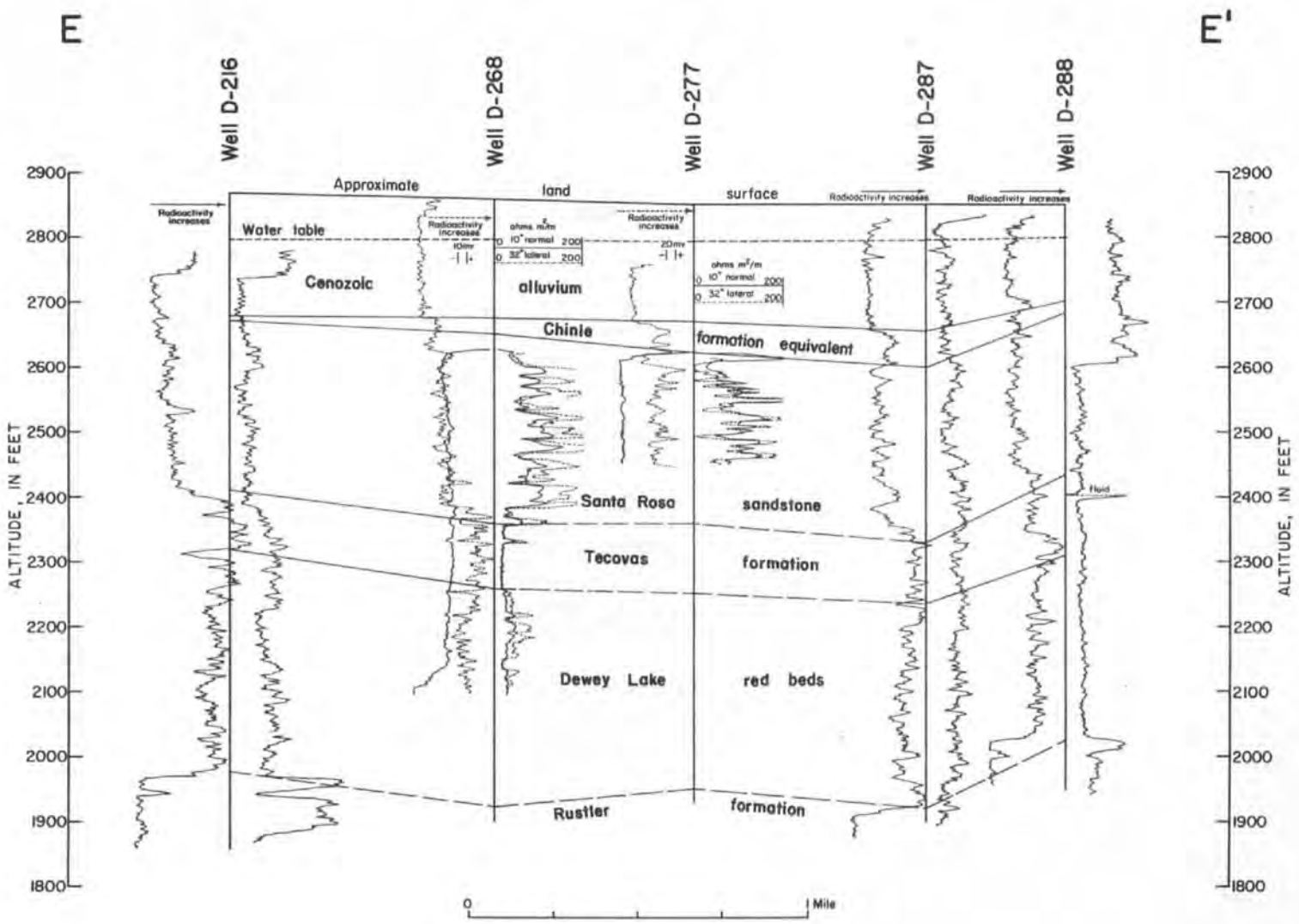


FIGURE 5 - Geologic cross section along line D-D', vicinity of Kermit, Tex.



For location of cross section see fig. 5.

FIGURE 6. Geologic cross section along line E-E', vicinity of Kermit, Tex.

The second major structural feature is a structural high, the axis of which extends southwestward from near the corner of New Mexico through the central part of the county to a point just west of Kermit, where it curves southeastward, the high disappearing about 12 miles southeast of Kermit. East of the axis of the high, the rocks dip slightly to the east or northeast. Kermit lies nearly across a saddle on the high between locally higher areas to the northeast and south. This regional high overlies the back-reef sediments of the underlying Permian reef complex. On the west side of the high, the Santa Rosa sandstone plunges into the slumpage trough. Farther west the Santa Rosa rises from the trough and again assumes a fairly level attitude.

There is little doubt that the rocks in Winkler County are faulted, but no faults are shown on the geologic map, the structural maps, or the cross sections. The cross sections and structural maps show deformation of the rocks on the southwestward-trending high and in the slumpage trough in west-central Winkler County, but the sand mantle prevents the detection at the surface of any fault traces.

GEOLOGIC FORMATIONS AND THEIR WATER-BEARING PROPERTIES

Paleozoic Era

Permian System

Guadalupe series

Guadalupe time in Winkler County and vicinity was characterized by a restriction of the areas of marine environment. This condition resulted partly from the general retreat of the Permian seas from the continent and partly from the growth of reefs around the Delaware Basin. The reefs caused large lagoonal areas to be shut off from free access to the sea so that the salinity of the lagoons was greatly increased by evaporation. In late Guadalupe time sedimentation was continuing at different levels simultaneously: in the lagoon behind the reef barrier, on the reef itself near sea level, and on the floor of the sea.

In the following discussion of the individual formations of the Guadalupe series, only the Capitan limestone and its back-reef equivalents are considered. The equivalents in the Delaware Basin are not known to yield water and are not discussed.

Capitan limestone.--The Capitan limestone, 1,500 to 2,000 feet thick (Newell and others, 1953, p. 105) is late Guadalupe in age. The sediments, originally deposited as a reef, consist of limestone, dolomite, and talus characteristic of reefs. Adams and Frenzel (1950, p. 295, fig. 1) show the Capitan as a north-south-trending belt of rocks approximately 6 miles wide near the center of the west half of Winkler County. The Capitan is found at depths greater than 2,000 feet throughout its extent in the county; it interfingers with rocks of the Whitehorse group to the east.

There is no known production of water from the Capitan limestone in Winkler County. However, the Capitan yields about 1,000 gpm moderately saline water to an irrigation well in Pecos County and it is possible it would yield similar supplies in Winkler County.

Whitehorse group.--The five formations of the Whitehorse group--the Grayburg, Queen, Seven Rivers, Yates, and Tansill--are back-reef equivalents of the Capitan reef sediments. Along the west side of the Central Basin Platform, the Whitehorse is predominantly dolomite interbedded with sand and some anhydrite and salt, the proportion of anhydrite and salt increasing to the east.

Grayburg formation.--The Grayburg formation (Dickey, 1940, p. 44-47), approximately 300 feet thick in Winkler County, is the lowest formation of the Whitehorse group. It consists of dolomite and sandy dolomite interbedded with red and gray sandstone; some anhydrite is present locally. The depth to the Grayburg ranges from about 3,200 to 4,000 feet in Winkler County.

The Grayburg yields large quantities of moderately saline water, which is used for waterflooding in the oil fields between Kermit and Wink.

Queen formation.--The Queen formation (Lang, 1937, p. 856-859; King, 1942, p. 705, 707), approximately 400 feet thick in Winkler County, overlies the Grayburg formation. It consists of red and gray sandstone interbedded with dolomite and some anhydrite and salt. The Queen is found at depths ranging from about 2,800 to 3,600 feet in the county.

The Queen formation is not known to yield water to wells in Winkler County.

Seven Rivers formation.--The Seven Rivers formation (Lang, 1937, p. 856-860), approximately 550 feet thick in Winkler County, overlies the Queen formation. The Seven Rivers consists of anhydrite and some red sandstone, shale, and dolomite. Toward the reef the dolomite content of the formation increases as the anhydrite content decreases. The depth to the Seven Rivers in Winkler County ranges from about 2,500 to 3,000 feet.

Large quantities of moderately saline water are produced with the oil from this formation, and much of it is used for waterflooding.

Yates sandstone.--The Yates sandstone was named by Cartwright and Adams (Gester and Hawley, 1929, p. 487) from the type locality in the Yates oil field in Pecos County. It is approximately 300 feet thick in Winkler County and overlies the Seven Rivers formation. The Yates consists of gray and red sandstone having scattered large frosted quartz grains, a few thin beds of dolomite, and beds of red and gray shale. The depth to the Yates in Winkler County ranges from about 2,300 to 2,800 feet.

The Yates yields small quantities of brine in conjunction with oil production in the county.

Tansill formation.--The Tansill formation (DeFord and Riggs, 1941), which is approximately 200 feet thick in Winkler County, overlies the Yates sandstone and is the top formation in the Whitehorse group. The rocks are predominantly dolomite near the reef, grading away from the reef into anhydrite and to anhydrite and salt. The Tansill is found at depths ranging from about 2,100 to 2,700 feet in the county.

The Tansill formation is not known to yield water to wells in Winkler County.

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Ochoa series

Throughout Permian time a deep embayment linked the broad, shallow seas of the Permian Basin with the ocean to the south. In the Capitan stage a continuous barrier reef separated the deep seaward waters from the shallow, back-reef lagoons. At the close of Capitan deposition the lagoonal sea expanded when the Delaware Basin was uplifted and tilted slightly eastward. The first deposits in the expanded lagoon were anhydrite, and these were followed by a thick section of salt interbedded in places with potash salts and other late-stage evaporites. The Dewey Lake red beds, the last in the Ochoa series, mark the end of marine deposition in the Permian Basin.

Castile formation.--The Castile formation, approximately 1,700 feet thick in Winkler County, (Lang, 1937, p. 876) is the bottom formation of the Ochoa series. The evaporites of the Castile formation filled the basin in front of the previously deposited Capitan reef sediments. The Castile is not present on the Central Basin Platform. The evaporites consist largely of calcareous anhydrite and some fairly widespread salt beds. The Castile is found at depths greater than 3,000 feet in Winkler County.

The Castile formation is not known to yield water in the county.

Salado formation.--The Salado formation (Lang, 1935, p. 262-270), approximately 400 to 2,000 feet thick in Winkler County, overlies the Castile formation in the Delaware Basin and the Tansill formation on the Central Basin Platform. The Salado is thinnest where it underlies the slumpage trough of west-central Winkler County. The difference in thickness is due principally to the removal of salts by subsurface solution (Maley and Huffington, 1953, p. 543). The Salado in the Delaware Basin was truncated and overlapped by the Rustler formation. The upper salt beds extend northeastward from the reef rim of the Delaware Basin across most of the Central Basin Platform.

The Salado formation differs from the Castile formation in that it is composed mostly of salt (halite) and a suboridnate amount of anhydrite. Another important difference is the presence in the Salado of potash minerals such as sylvite and orange polyhalite instead of calcite as in the Castile. The Salado has small amounts of dolomite and magnesite. The depth to the Salado in Winkler County ranges from 1,100 to about 2,300 feet.

The formation is not known to yield water in the county.

Rustler formation.--Deposition of the Rustler formation (Richardson, 1904, p. 44) was preceded by a period of uplift and erosion. The Rustler, 300 to 500 feet thick in Winkler County, unconformably overlies the Salado formation. It consists largely of dolomite and anhydrite and has a basal zone of sand, conglomerate, and variegated shale. Locally the Rustler contains minor amounts of salt, and in places limestone replaces the dolomite. The dolomite and limestone contain many of the openings known as vugs, and cavernous conditions are reported in many places. The altitude of the Rustler is shown in plate 3.

Production of water from the Rustler is sporadic, owing to the irregular occurrence of cavernous openings; however, yields up to 800 gpm have been reported. Most wells drilled into or through the Rustler in Winkler County yield artisian water. The water is either highly saline or briny and is used for waterflooding.

Dewey Lake red beds.--The Dewey Lake red beds (Page and Adams, 1940, p. 62-63), 230 to 580 feet thick in Winkler County, are the youngest formation of the Ochoa series. The individual beds are uniformly thin and consist of siltstone cemented with gypsum and calcite. The contact between the red beds and the underlying Rustler formation is easily distinguished by the change in lithology between the red beds and the anhydrite member of the Rustler. On most radioactivity logs the top of the Dewey Lake is marked by a distinct zone, generally 10 to 30 feet thick, of decreased natural radioactivity as measured by the gamma-ray curve. In electric logs the same zone is outlined by the self-potential curve, which is sharply depressed opposite the zone. (See wells H-34 and H-41, pl. 5.) The zone is considered to be the "zone of bleaching" noted by Page and Adams (p. 62). The Dewey Lake is found in the county at depths ranging from 250 to about 1,650 feet.

The Dewey Lake red beds are not known to yield water to wells in Winkler County.

Mesozoic Era

Triassic System

Dockum group

The Dockum group is exposed in scattered small outcrops in the Southern High Plains and the Pecos River Valley. The group has been divided into three formations: the lower red shale, siltstone, and very fine-grained sandstone called the Tecovas formation; the middle reddish-brown and gray sandstone called the Santa Rosa sandstone; and the upper brick-red to maroon and purple shale with thin beds of fine red or gray sandstone and siltstone called the Chinle formation equivalent.

The Dockum group is almost the exact equivalent of the Chinle formation of the Colorado Plateau region (Reeside and others, 1957, p. 1476). However, local usage has included only the upper part of the Dockum group as equivalent to the Chinle formation of the type area. The term Chinle formation equivalent will be used in this report.

Tecovas formation.--The Tecovas formation, ranging from 0 to 270 feet in thickness in Winkler County is the bottom formation of the Dockum group. The Tecovas, laid down on an erosional surface in the Dewey Lake red beds, consists of red shale, silt, and very fine-grained sandstone grading into the overlying Santa Rosa sandstone. The Tecovas is readily distinguished in radioactivity logs by its high degree of natural radioactivity as measured by the gamma-ray curve. In electric logs it is distinguished by a higher self-potential than that of either the top zone of the underlying Dewey Lake red beds or of the overlying Santa Rosa sandstone. (See wells H-34 and H-41, pl. 5.) The Tecovas is present in most places in Winkler County; however, in a small area southwest of Wink it has been removed, apparently by erosion (well F-31, pl. 5). The Tecovas is found at depths ranging from about 100 to 1,450 feet in the county.

The Tecovas formation is not known to yield water to wells in Winkler County.

11.09032

Santa Rosa sandstone.--The Santa Rosa sandstone, 220 to 350 feet thick where the full section is present in Winkler County, overlies the Tecovas formation and underlies the Chinle formation equivalent, or Cenozoic alluvium where that unit is absent. A full or partial section of Santa Rosa sandstone is present everywhere in the county except in the area southwest of Wink, where the entire Triassic section has been removed by erosion (well F-31, pl. 5). Plate 4 shows the altitude of the base of the Santa Rosa throughout the county.

The Santa Rosa sandstone consists of reddish-brown and gray medium-to-coarse-grained, subangular arkosic, micaceous, and conglomeratic sandstone cemented with calcite and some silica. The sandstone is typically crossbedded and is interbedded with soft red and green shale and siltstone.

The Santa Rosa sandstone is the principal fresh-water aquifer in the county. The occurrence of ground water in the Santa Rosa and associated alluvial deposits is discussed in detail on pages 21-25.

Chinle formation equivalent.--The Chinle formation equivalent, ranging in thickness from 0 to approximately 1,000 feet in Winkler County, is the top formation of the Dockum group. It conformably overlies the Santa Rosa sandstone and unconformably underlies Cretaceous and Cenozoic rocks. The Chinle formation equivalent crops out in a very narrow band near Concho Bluff; however, owing to the small extent of the outcrop, it is not shown on the geologic map. The formation is present in the subsurface of the eastern part of the county and much of the northern part, but owing to erosion it is absent in the southwestern part of the county and on the structural high in the west-central part (see pls. 2, 6, and 7).

The Chinle formation equivalent consists of brick-red to maroon and purple shale and thin beds of fine red or gray sandstone and siltstone. Green and gray mottling and yellow streaks are common in the shale. The beds of sandstone are of a finer testure than those of the underlying Santa Rosa. Locally, limestone beds several feet thick are found in the formation.

The Chinle formation equivalent is not known to yield water to wells in Winkler County.

Cretaceous System

Trinity group

The Trinity group, which has a maximum thickness of about 100 feet where it crops out to form the base of Concho Bluff in northeastern Winkler County, unconformably overlies the Chinle formation equivalent. The Trinity consists of sandstone, siltstone, conglomerate, and gravel cemented with carbonate minerals. In a few places silica-cemented zones are found.

Although the Trinity group is the principal source of water in neighboring Ector County, it yields only small quantities of water of good chemical quality to a few wells in the extreme northeastern part of Winkler County. Most of the beds of the Trinity group lie above the water table in the county.

Fredericksburg group

The Fredericksburg group, 0 to 50 feet thick, overlies the Trinity group in northeastern Winkler County. The Fredericksburg consists of gray to cream and brown hard to earthy fossiliferous and sandy marine limestone. Solution cavities, some of which may be seen in the face of Concho Bluff, are common in the limestone.

Like most of the Trinity group, the rocks of the Fredericksburg group are not water bearing in Winkler County.

Cenozoic Era

Tertiary and Quaternary Systems

Cenozoic alluvium

The Cenozoic alluvium unconformably overlies rocks of Permian, Triassic, and Cretaceous ages in Winkler County. The thickest alluvial sediments were deposited in the slumpage trough on the eroded surface of the rocks of Triassic age. The final establishment of the erosional surface took place in Cenozoic time prior to and during the deposition of the alluvium.

Consisting of unconsolidated sand, silt, gravel, clay, and caliche the alluvium has an average thickness of about 100 feet except in the trough, where it has a maximum thickness of 1,050 feet. Thin beds of gravel are reported in the alluvium in the Central Basin Platform, whereas in the slumpage trough in west-central Winkler County individual gravel beds have been found to be as much as 90 feet thick. Clay beds as much as 200 feet thick also occur in the deep alluvium.

The alluvium is similar in color to the underlying Triassic and Permian red beds and is difficult to distinguish on the basis of color; however, the two may be distinguished readily by differences in radioactivity. Except where the Cenozoic rocks are in contact with the Santa Rosa sandstone, their radioactivity as measured by the gamma-ray curve of radioactivity logs is considerably less than that of the underlying Triassic and Permian rocks (wells D-10, E-14, and E-5, pl. 2). Where the Cenozoic and Santa Rosa are in contact, the drillers' logs generally are the best means of determining the contact.

The occurrence of water in the Cenozoic alluvium is discussed in detail on pages 21-25.

Quaternary System

Sand dunes

A belt of sand dunes 8 to 15 miles wide extends southeastward through the eastern part of Winkler County (see pl. 1). A part of the belt (2 to 4 miles wide) consists of high shifting dunes, making up an area almost entirely devoid of vegetation. The remainder of the dunes are captured and support sparse vegetation. The dune sand ranges in thickness from 0 to about 250 feet, the thickness being greatest in the area of the high dunes.

11.00034

Although the dune sand yields small quantities of water of good quality to pits and a few wells, its chief importance is as an excellent recharge facility to the underlying formations.

GROUND WATER

Source and Occurrence

The principal fresh-water aquifers underlying Winkler County are the saturated zones in the Santa Rosa sandstone and the Cenozoic alluvium. They are part of extensive aquifers underlying a large area in West Texas and eastern New Mexico. The source of all fresh water to the aquifers is precipitation, part of the water being derived from precipitation within the county and part from areas to the north and northeast. The Santa Rosa obtains its water principally from water percolating through the Cenozoic deposits where the two formations are in contact and the base of the Santa Rosa is the lower limit of fresh water in the county. The source of water to the older saline water-bearing formations is, in addition to that entrapped in the formations at the time of their deposition, underflow into the county from their outcrop areas and leakage from overlying or underlying formations.

The Santa Rosa sandstone and Cenozoic alluvium are separate aquifers where the relatively impermeable material of the Chinle formation equivalent is present between them. The Chinle formation equivalent confines water in the Santa Rosa under artesian pressure, whereas water in the Cenozoic alluvium is unconfined and occurs under water-table conditions. Where the Chinle formation equivalent is absent the Santa Rosa and alluvium are in contact, forming a single unconfined aquifer.

The Santa Rosa sandstone is the most extensive of the two aquifers and has no lateral boundaries in Winkler County. The Cenozoic alluvium extends into New Mexico and adjoining counties, but as an aquifer it is discontinuous in areas where it is non-water-bearing, and it is missing where older formations crop out (see pl. 1).

Water fills the pore spaces of the granular material of the aquifers. The porosity is the proportion of pore space to the total volume of material and is independent of grain or pore size. Thus, a unit volume of clay or silt may contain as much water as, or more water than, a unit volume of sand or gravel. The ability of the aquifers to transmit water is called "permeability" and is largely a function of the pore size--the larger the pore spaces the more readily the material will transmit water. The Santa Rosa generally stores less water and is less permeable than the unconsolidated materials of the Cenozoic alluvium because it is more compact and cementing material fills some of the pore space. However, in some places the Santa Rosa has been fractured and large openings created which locally may make the aquifer more permeable than the coarsest material in the Cenozoic alluvium.

The occurrence of water in the older, saline-water-bearing formations is discussed in this report only as it pertains to the pollution of the fresh-water aquifers.

Movement of Ground Water

Plate 7 shows by contours the configuration of the water table in the Cenozoic alluvium in Winkler County in 1956. Insufficient data are available to contour the piezometric surface of the water in the Santa Rosa, but the altitudes of water levels in a few wells in the Santa Rosa are shown on plate 7.

The configuration of the water table is related to the direction of ground-water movement but also is a reflection of such things as differences in recharge rates and transmitting properties of the aquifer, of discharge areas, and of irregularities of the underlying confining beds. From all available hydrologic data, ground water in Winkler County is believed to move as follows: A relatively small amount of water moves into the county from the northeast. Recharge from the land surface increases the quantity as flow continues southwestward, the natural recharge being greatest in the sand-dune area in the eastern part of the county. The flow through the Cenozoic alluvium is decreased in an area north-northeast of Kermit, where a part of the water moves downward from the Cenozoic into the underlying Santa Rosa forming the chief means of recharge of that formation in the report area. In the vicinity of Kermit withdrawals from industrial and public-supply wells also tend to decrease the flow through the Cenozoic alluvium. West of Kermit a few miles, the flow tends to be increased substantially by recharge from industrial wastes. Underflow from this area, where the contours on plate 7 are widely spaced, appears to be divided principally into two components--one toward the thick deposits in the structural trough to the west and the other toward the south to the county line in the area east of the trough. The alluvium at the east edge of the county is not waterbearing; consequently, the water moving into the trough is presumed to move southward through the trough.

The altitudes of water levels in wells tapping the Santa Rosa (see pl. 7) in the area north-northeast of Kermit are higher than those in surrounding areas in the county east of the structural trough. Thus, water in the Santa Rosa appears to move in all directions away from the area where it enters the formation from the overlying Cenozoic alluvium.

Water from the Santa Rosa sandstone generally is more mineralized in the far northern and eastern parts of the county than in the central and southern areas. The higher mineralization suggests that the movement of water toward the east and north is very slow compared to movement toward and south of Kermit, where the quality of the water in the Santa Rosa sandstone is similar to that of the fresh water in the alluvium. The chemical quality of the water and its relative rate of movement in the Santa Rosa sandstone in the rest of the county east of the structural trough is unknown.

The altitudes of water levels in wells in the Santa Rosa west of the trough suggest that water moves into the trough and southeastward along it. Water west of the trough is of good quality.

Recharge

Natural Recharge

Most of the precipitation in Winkler County is evaporated or consumed by plants; only a small part recharges the aquifers. The aquifer is substantially recharged only when intense storms of long duration or of frequent occurrence

11.00036

moisten the soil enough that deep percolation takes place. However, such climatic conditions are infrequent.

The area most favorable for recharge is a belt of sand dunes 8 to 15 miles extending northwestward across the eastern part of the county (see pl. 1). The thickness and permeability of the material in this area are such as to permit much of the water to percolate rapidly past the soil and shallow subsoil, from which water is discharged by evaporation and transpiration. Elsewhere in the county the sandy mantle absorbs water rapidly but may be underlain at shallow depths by finer material which retards downward percolation. A determination of the amount of natural recharge in Winkler County is beyond the scope of this investigation.

Artificial Recharge

The Cenozoic alluvium is and for some time has been recharged at a substantial rate by oil-field waste water in parts of the county. The area most heavily recharged is about $4\frac{1}{2}$ miles west-southwest of Kermit. Although the nature of the surface material does not make this area more favorable for recharge from precipitation than other areas in the county, plate 7 shows that the water table is mounded beneath the area. Waste water leaking from earthen disposal pits for many years appears to be the cause of the greater rate of recharge. Many pits, generally near the separators that gather fluid from producing oil wells in the Hendrick oil field, are the receptacles for the waste water. Ideally they lose water only by evaporation, but evaporation losses are retarded by the film of oil that floats on the surface of the water, and much of the water is lost by seepage through the bottoms and sides of the pits. Other areas in the county where oil is produced also are recharged with waste water, but to a lesser extent than in the Hendrick field. Further evidence of recharge from industrial wastes is discussed on pages 45-47.

Generally, oil-well waste water is highly mineralized, and the amount of evaporation that does take place increases the concentration. Thus, recharge from this source pollutes the fresh-water aquifer. The amounts and chemical quality of the produced waste water and its effect on the chemical quality of ground water are discussed on page 45.

The amount of artificial recharge from other sources, such as irrigation waste water and sewage is not known but is probably small.

Discharge

Ground water is discharged at the land surface in Winkler County through wells and by evapotranspiration where the water table is close to the land surface. Underflow from the county southward ultimately is discharged in the Pecos River Valley. There is no spring flow or effluent seepage to streams in the county.

In 1956, water wells discharged about 8 mgd of fresh water and about 3 mgd of saline water. More than half of the fresh water and nearly all the saline water is pumped by the oil industry. In addition to the production from water wells, more than 20 mgd of saline water was produced with the oil from oil wells in 1956.

The fresh water is derived from both the Cenozoic alluvium and the Santa Rosa sandstone; the saline water is derived from numerous older formations, but pricipally those producing appreciable quantities of oil. A more detailed summary of withdrawals from wells by use and by location is included in following sections of this report.

The principal area of natural ground-water discharge is along the base of the sand dunes on the southwest side, where the water table is very close to the land surface. Large but undetermined quantities of water are evaporated from the soil and transpired by the vegetation, which is considerably denser here than elsewhere in the county. Ground water is discharged by evapotranspiration also in a few other scattered areas in the county where the water table is close to the land surface. The areas were not mapped nor was the quantity of discharge from them determined.

The concentration of withdrawals from wells in Kermit and the industrial area north-northwest of the city has noticeably depressed the water table in the Cenozoic alluvium. (See pl. 7.) Water moves laterally toward the pumped wells, and cone-shaped depressions are formed in the water table in the centers of withdrawal. The quantity of water pumped is directly related to the volume of the cones because practically all of it is derived from storage. The cones will continue to enlarge until they intercept an area where the recharge can be increased or the natural discharge can be decreased enough to equal the rate of pumping. This balanced condition is unlikely to occur within the foreseeable future because of the slow rate of development of the cones and the remoteness of areas where enough water can be intercepted. Thus, water will continue to be withdrawn principally from storage except as it is replaced by oil-field waste water.

Storage of Fresh Water

Some tens of millions of acre-feet of fresh water is stored in the Cenozoic alluvium and Santa Rosa sandstone beneath Winkler County. Parts of the formations are unexplored and accurate estimates of the quantity of water in them cannot be made with present data. However, the explored part of the aquifers contains about 20 million acre-feet. The deep alluvium and Santa Rosa sandstone in the structural trough form the largest unexplored part of the aquifers; the deposits of the Santa Rosa in the eastern third of the county also are unexplored. Part of the unexplored rocks may contain saline water, but a substantial part probably contain fresh water.

It is impractical to recover all the ground water in storage. The amount that will drain from the deposits by gravity may be as little as 50 percent of the total quantity, and the amount economically recoverable from wells may be only one-half to two-thirds of that amount. Thus, the quantity of water available for development from the explored rocks is probably about 5 to 7 million acre-feet.

Utilization

Before the discovery of oil in 1926, fresh-water pits dug in the sand-dune area and shallow windmill wells scattered throughout the county supplied water to the population of less than 100 and to the stock on the extensive ranches.

11.00038

More and deeper wells were drilled to meet the demand for more water as the oil industry grew and the population increased. By 1956 most of the water was pumped from deep wells equipped with electrically poweredturbine pumps. The following table shows the range in yields of wells and the estimated withdrawal of fresh water by use in Winkler County in 1956.

Use	Number of wells	Yield per well (gpm)	Average pumpage (mgd)	
Public supply:				
Kermit	9	160-400	1.67	
Wink	2	100-300	.08	
Oil-field camps	29	30-180	.18	
Schools	2	--	.07	
				2.00
Industrial:				
Gasoline and other plants	77	30-300	1.82	
Waterflooding 1/	61	30-200	2.98	
				4.80
Irrigation:				
Includes parks and golf course	7	100-1,200	1.06	
				1.06
Stock and domestic:	--	--	.31	
				.31
TOTAL				8.17

1/ Waterflooding is the process of injecting water into oil-bearing formations to facilitate the recovery of the oil.

Public Supplies

City of Kermit

In 1941 the city of Kermit assumed control of the municipal water system, which was formerly operated by the Community Public Service Company. The system at that time was supplied from two wells tapping the Cenozoic alluvium. Well D-279, a well in the Santa Rosa sandstone, was incorporated into the system late in 1941.

In 1956 the city was using six wells tapping both the alluvium and the Santa Rosa sandstone, the wells yielding 200 to 300 gpm each. All the wells are about 300 feet deep. In most of these wells the upper section of the saturated alluvium is cased off, because it contains large amounts of loose fine sand.

The wells tapping only the Santa Rosa sandstone ranged in yield from 160 to 400 gpm in 1956. Well D-291, 570 feet deep in the Santa Rosa sandstone drilled by the city in 1957, yields about 400 gpm. Two other wells in the Santa Rosa,

D-277 and D-299, drilled in 1957 were the most successful in the county. On test the wells yielded 1,200 and 1,875 gpm, respectively. Permanent pumps for the wells are designed to yield about 750 gpm.

In 1957 the capacity of the city's ground and overhead water-storage reservoirs was 1,655,000 gallons and 150,000 gallons, respectively.

Figure 7 shows the increase in pumpage from the municipal wells from 1943 through 1956. The large increase in withdrawals during the summer months is due chiefly to lawn irrigation and to cooling. The annual pumpage increased from 71 million gallons in 1943 to about 610 million gallons in 1956.

City of Wink

From 1930 to 1953 the city of Wink had three wells tapping the alluvium for its municipal water supply. The wells, 165 to 250 feet deep, yielded 30 to 210 gpm. Well G-109, the last of these wells to be used, was abandoned in April 1957 because of an increase in the mineralization of the water.

After April 1957 all the water for the city of Wink was supplied by wells G-110 and G-111, drilled in 1953. Both wells, 240 feet deep, are cased with 16-inch pipe to about 180 feet and uncased below that depth. Well G-110 yields about 300 gpm, whereas well G-111 yields only about 180 gpm with a drawdown of about 80 feet after pumping 2 hours.

In 1956 the total capacity of the overhead and ground-storage reservoirs was 96,000 gallons. In 1957 the city installed another ground-storage tank having a capacity of 420,000 gallons.

The water system of the city of Wink had about 450 customers in 1956, and the pumpage for the year was about 30 million gallons.

Oil-field camps

Twelve large camps have been built in Winkler County for the families of oil-company personnel. Each camp has from 5 to 43 houses and its own water wells and distribution system. Smaller camps, serving as field offices and having housing facilities for employees, also have their own water wells and distribution systems. The combined withdrawal by the 12 major camps in Winkler County averaged about 180,000 gpd in 1956.

Of the 12 large camps, 9 are in the industrial area north-northwest of Kermit (grid D, pl. 1). Of the 24 wells serving the camps, 13 draw water from the Cenozoic alluvium, 2 draw water from the Santa Rosa sandstone, and 9 draw water from both aquifers. The wells yield 30 to 180 gpm and range in depth from 156 to 600 feet. The pumpage in 1956 for the 9 camps was about 53 million gallons of water--an average of about 145,000 gpd.

The 3 other camps are at or in the vicinity of Wink. The camp at Wink has a field office and about 25 houses, and the water is supplied from 2 wells tapping the alluvium. A large camp 2 miles west-southwest of Kermit and another camp 5 miles east of Wink are supplied by 3 wells tapping both the alluvium and the Santa Rosa sandstone. About 12 million gallons of water was used by the 3 camps in 1956.

11.00040

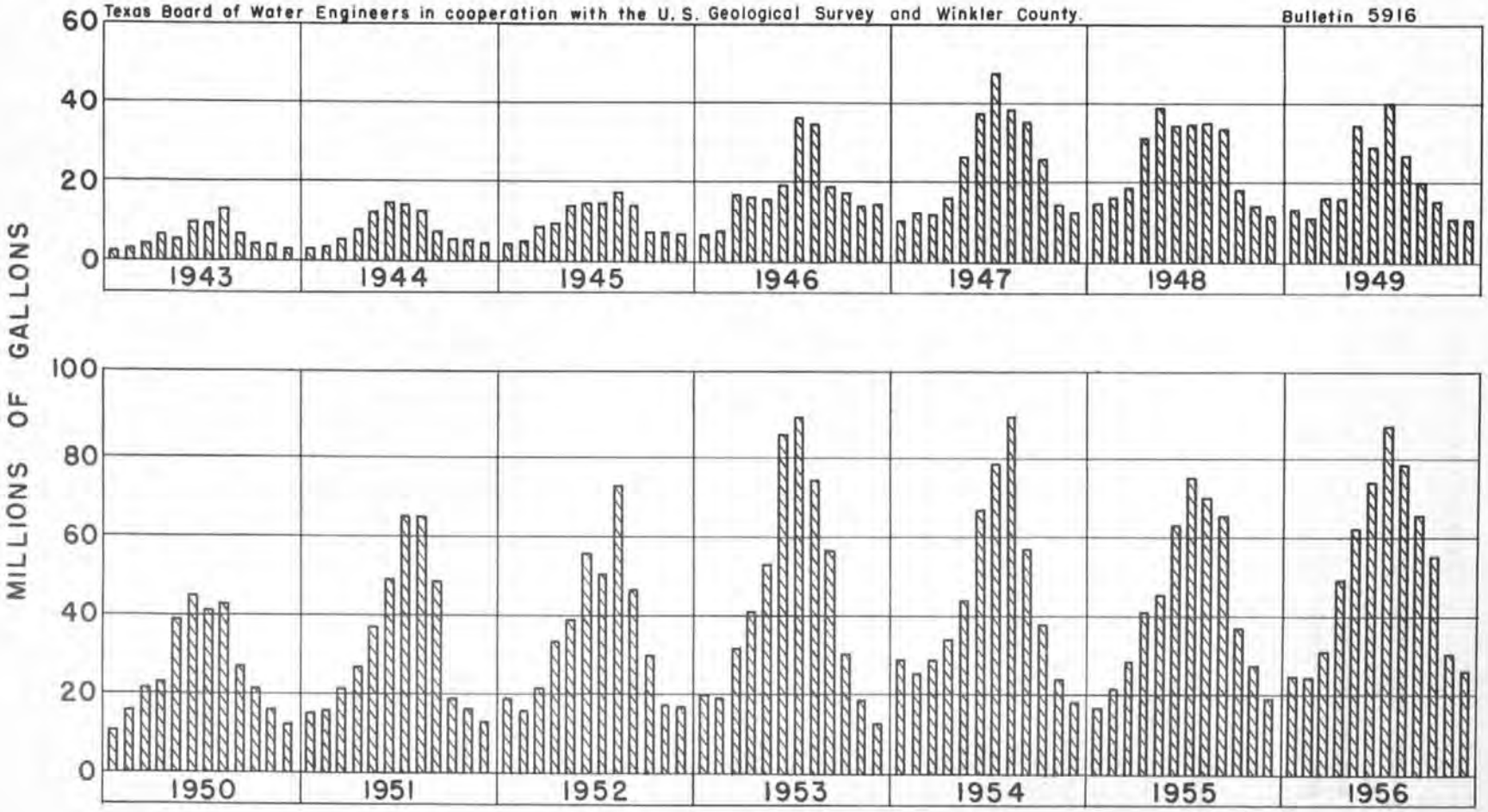


FIGURE 7. - Monthly pumpage from municipal wells in Kermit, Winkler County, Tex.

Industrial Supplies

Industry used more than half the fresh water pumped in Winkler County in 1956 and all the saline water. Most of the fresh water and all the saline water was used for waterflooding in connection with secondary-recovery projects in oil fields. The secondary-recovery projects used about as much saline water as fresh water in 1956.

Industrial plants

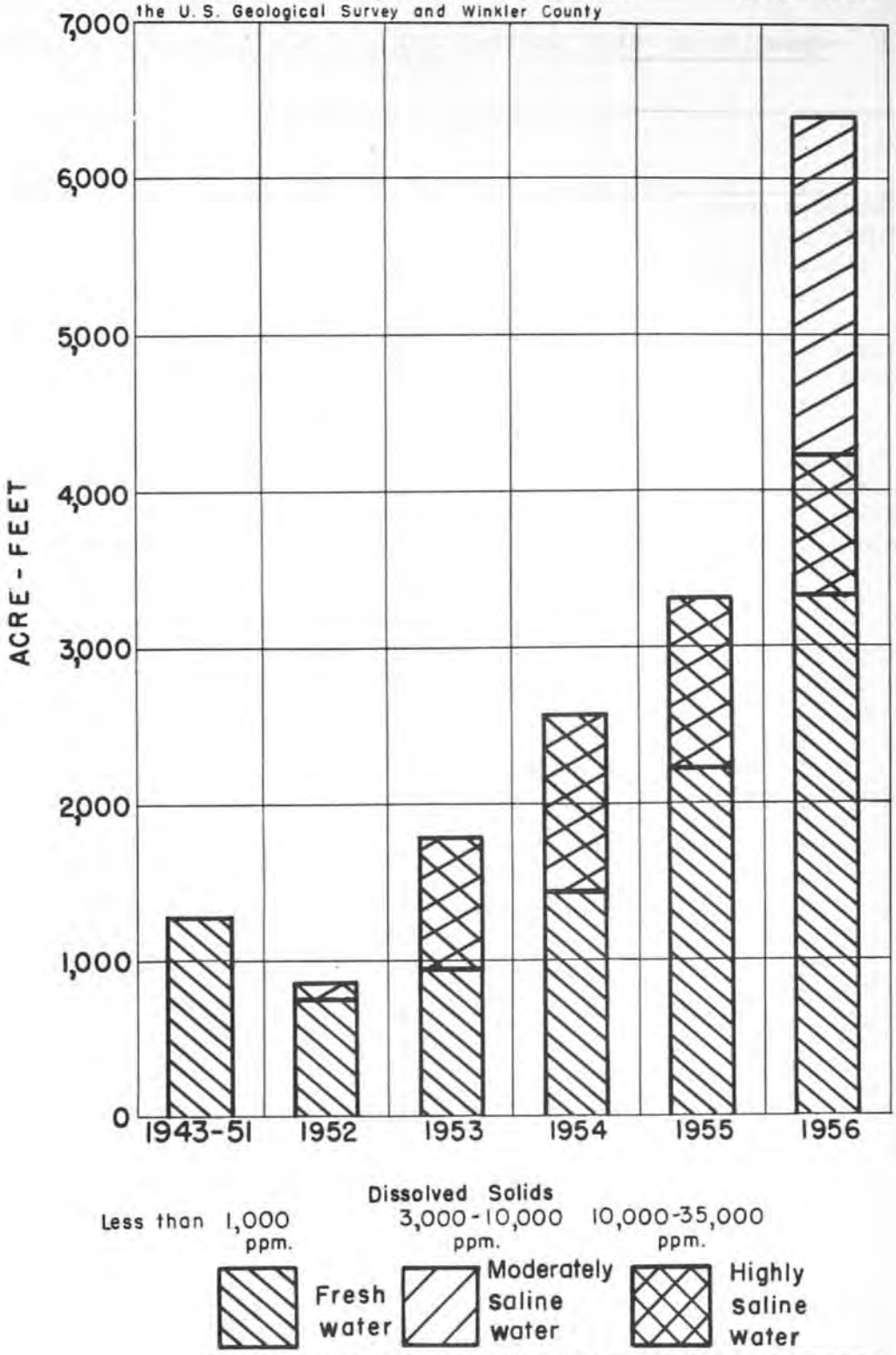
Four plants were engaged in the extraction of gasoline from natural gas in Winkler County in 1956. Two of the plants are about 3½ miles north-northwest of Kermit, one is about 6 miles north-northeast, and the other is about 4½ miles south. The combined rate of ground-water withdrawal by these plants in 1956 averaged about 660,000 gpd from 17 wells, 7 of which tap the Cenozoic alluvium and 10 the Santa Rosa sandstone. The wells range in depth from 110 to 275 feet and yield 30 to 300 gpm. Some have reciprocating cylinder pumps powered either by internal-combustion engines or by small electric motors, but most of the wells are equipped with turbine pumps powered by electricity.

A carbon-black plant about 4 miles north of Kermit used about 400,000 gpd in 1956 from 2 wells tapping the alluvium D-136 and D-137. Pipeline and compressor plants used an average of about 480,000 gpd. The 9 largest pipeline and compressor plants are scattered throughout the area represented by grids D and G on plate 1; the 2 largest plants are in the northern half of grid D. In 1956 the 9 largest plants operated 17 water wells, most of which had turbine pumps powered by electric motors. Of the 17 wells, 8 tap the Cenozoic alluvium, 2 tap the Santa Rosa sandstone, and 7 tap both aquifers. The wells range in depth from 120 to 600 feet and yield 30 to 185 gpm.

Waterflood projects

Waterflooding, one of the methods used in the secondary recovery of oil, involves injecting water under pressure through strategically spaced wells tapping the oil zone. The injected water raises the pressure head in the reservoir and displaces the oil, pushing it as a "front" or "bank" toward the oil-producing wells. Waterflooding projects were started in Winkler County in 1943, and only fresh water was used until 1952. By the end of 1950, 5 oil operators were using the process, and in 1956, 17 operators were using it. One operator reports that a waterflooding project may last 9 or 10 years; others report that their projects may last longer.

Some of the operators consider waterflooding in Winkler County an economically successful venture; others are unsure without a longer range evaluation of the results. Figure 8 shows that the use of fresh water for waterflooding has increased steadily since 1943. The use of highly saline water (10,000 to 35,000 ppm of dissolved solids) has remained relatively constant since 1953; moderately saline water (3,000 to 10,000 ppm of dissolved solids) was not used in appreciable quantities until 1956. Some of the oil operators report that, although their waterflooding programs will increase in scope, their use of fresh water will decrease because they plan to recycle the saline water that is produced with the oil. Table 3 shows that large quantities of saline water are available from oil wells.



Data for period 1943–56 from Texas Railroad Commission.
Data for 1956 compiled by U. S. G. S.

FIGURE 8. – Quantity and quality of water used in waterflooding projects in Winkler County, Tex.

Table 3 --Quantity of water produced with oil in Winkler County, Tex. 1957 1/

	Number of wells in production	Water diverted to disposal pits (gallons per day)
Block 20 (Delaware sand)	3	2,650
Circle 2 (Fusselman)	2	5,630
East Jasper (Mississippian)	?	210
Eaves	10	49,000
Emperor	199	72,800
Emperor (deep)	60	4,830
Emperor (Holt)	46	12,100
Flying "W"	4	7,600
Halley	65	4,840
Halley (Devonian)	5	24,500
Halley (Ellenburger)	2	5,370
Halley (Glorieta)	?	1,770
Halley (Montoya)	4	20,900
Henderson	37	1,520,000
Hendrick	255	14,500,000
Kermit	762	1,100,000
Kermit (Ellenburger)	9	630
Kermit (Fusselman)	2	6,340
Kermit, South (Ellenburger)	3	2,230
Keystone (Colby sand)	436	108,000
Keystone (Devonian)	84	3,280
Keystone (Ellenburger)	128	207,000
Keystone (Holt)	109	24,300
Keystone (Lime)	117	60,300
Keystone (McKee)	?	504
Keystone (Silurian)	48	36,400
Keystone ,South	14	4,370
Leck	18	141,000
Monahans, North	7	1,070
Monahans, North (Devonian)	5	232
Monahans, North (Ellenburger)	4	2,500
Monahans, North (Glorieta)	3	2,450
Monahans, North (Waddell)	1	581
Scarborough	117	19,400
Scarborough, North	2	88
TXL (San Andres)	?	252
Ward-Estes, North	?	2,310
Weiner (Colby sand)	64	14,800
Wheeler (Devonian)	35	16,000
Wheeler (Ellenburger)	29	153,000
Wheeler (Silurian)	8	746
Wheeler, Northwest (Ellenburger)	1	9,500
Wight Ranch (Clear Fork)	2	1,680
Wight Ranch (Ellenburger)	1	7,460
TOTAL (rounded)	2,700	18,000,000

1/ Data from operating companies

11.00044

Fresh water.--About 3,340 acre-feet, or more than 1 billion gallons, of fresh water was used in waterflooding projects in Winkler County in 1956, making this industry the largest single consumer of fresh water. Sixty-one fresh water wells were used in 1956 as supply wells for waterflooding; 31 tap the Cenozoic alluvium, 5 tap the Santa Rosa sandstone, and 25 tap both aquifers. All the wells have turbine pumps powered by electric motors. Some wells are about 100 feet deep, but most are between 200 and 500 feet deep. Forty-six of the wells are in grid D, 12 are in the northern half of grid G, and 3 are in the western half of grid C. (See pl. 1.)

Saline water.--In 1952 several oil operators started using saline water for waterflooding. The water is treated before it is injected to inhibit corrosion. Some operators use moderately saline water from the oil strata in the Seven Rivers and Grayburg formations; others use water from the Rustler formations. Most of the water from the Rustler formation used for waterflooding in 1956 was highly saline. Some was moderately saline, and a small part was considered a brine, having more than 35,000 ppm of dissolved solids.

Some test wells drilled to the Rustler formation have produced no water; others have produced as much as 800 gpm. The variation in yield from place to place results from the irregular occurrence of cavernous openings in the limestone formation. Six wells, 1,000 to 1,300 feet deep, in grid D (pl. 1) produce water from the Rustler formation for waterflooding.

One oil company drilled wells G-9, G-37, G-40, G-41, and G-42 into the Grayburg formation in Winkler County for waterflooding at Goldsmith, in Ector County. The wells average about 3,550 feet in depth and are equipped with deep-well turbine pumps powered by electric motors. The water is piped from these wells in Winkler County about 30 miles to Goldsmith, where approximately 1 mgd was used for waterflooding in 1956. The same company also used more than 1 mgd for waterflooding in Winkler County in 1956. This supply came from several oil wells in the Hendrick field which produce large amounts of water from the Seven Rivers formation.

Other industrial uses

Other industrial uses of fresh water include (1) to use as a drilling fluid for the drilling of oil wells by the rotary method; (2) to flush out underground salt deposits to make storage space for liquefied petroleum gases; and (3) to seal wooden tanks used to store crude oil.

During 1956 several counts were made of the number of rotary drilling rigs in operation. The number varied from about 30 to 40. Generally a water well is drilled close to the oil test, but in a few places several rigs are served from one well through a common distribution system. One driller estimated his daily use of water per well to be between 1,500 and 2,500 gallons. Some of the water wells have been abandoned because oil tests were unsuccessful, or because drilling was terminated when the field was fully developed, but most of the wells have been placed on "standby" to be used when drilling is resumed.

One oil operator is using water to flush salt from the ground to create storage space for liquefied gas. He estimated that he used more than 30 million gallons of fresh water for this purpose in 1956.

Wooden oil-storage tanks are still used in Winkler County. Several oil operators use fresh water to expand the wood in order to keep the tanks leakproof.

Irrigation Supplies

Irrigation in Winkler County is still in the experimental stage. In most of the county the root zone is deep and the soil has a low moisture-holding capacity, moderate to low fertility, a high susceptibility to wind erosion, and a high water-intake rate, owing to its coarse texture (Soil Conservation Service, 1953, p. 5). Because of the excellent subsurface drainage in most places, rather highly mineralized water may be used for irrigation with little danger of salts accumulating in the soils. Some farmers in the area report that they are able to use water having between 1,000 and 2,000 ppm of dissolved solids.

Four wells were used to irrigate feed crops and vegetables in Winkler County in 1956. Three of the wells, G-161, G-162, and G-163, tap the deep Cenozoic alluvium about 5 miles south of Wink. They apparently produce enough water of suitable quality for irrigation of a few hundred acres of land. In 1956 the wells produced nearly 1,000 acre-feet of water. Well D-261, which taps the Santa Rosa sandstone near Kermit, yields considerably less water; it is used to irrigate one acre of feed crops and vegetables.

Wells F-8 and C-52 irrigate the Winkler County golf course and G-298 irrigates the Winkler County park, in the eastern part of Kermit. About 38 million gallons of water was used from these wells in 1956. The total use of water for irrigation in 1956 averaged only about 1 mgd.

Stock and Domestic Supplies

Most of the stock and domestic wells in Winkler County are equipped with windmills; the rest are equipped with pumps powered by electricity or gasoline.

Some of the wells are as much as 1,200 feet deep, but most are less than 300 feet. The yields range generally from 1 to 5 gpm. About 200 domestic and stock wells tap the Cenozoic alluvium, 18 tap the Santa Rosa sandstone, 12 tap both formations, and 2, B-9 and B-14, in the northeastern part of the county draw water from rocks probably of Cretaceous age. The combined withdrawal for stock and domestic use in 1956 was small in comparison to the total withdrawal for all uses and is estimated to have been about 310,000 gpd.

Pumping Tests

Pumping tests were made on a few wells in Winkler County to determine locally the water-bearing properties of the fresh-water aquifers tapped by the wells. Owing to the lack of suitable wells, testing of a representative sample of wells throughout the county was impossible. The results of the tests are applicable only within a small area around the tested wells and should not be the basis for predictions of well-field performance over long periods of time.

The principal hydraulic characteristics of a water-bearing material are the coefficient of transmissibility and the coefficient of storage. These characteristics, which govern the ability of aquifers to transmit and store water, may be determined from pumping tests.

The coefficient of transmissibility is expressed as the amount of water, in gallons per day at the prevailing temperature of the water, that will flow through a vertical strip of the aquifer 1 foot wide extending the full saturated height of the aquifer under a hydraulic gradient of 1 foot per foot (Theis, 1935, p. 520). It may be expressed also as the volume of water, in gallons per day, that will flow through a vertical strip of the aquifer 1 mile wide extending the height of the saturated aquifer under a hydraulic gradient of 1 foot per mile. The coefficient of storage is the volume of water released from or taken into storage per unit surface area of the aquifer per unit change in the component of head normal to that surface. Under artesian conditions the volume of water released from or taken into storage is determined by the compressibility of the aquifer and expansion of the water. Under water-table conditions the coefficient of storage is practically equal to the specific yield, which is the volume of water involved in gravity drainage or refilling, divided by the volume of the material drained or filled.

The yield per unit drawdown of a well would be greater than that of a similarly constructed well if the coefficient of transmissibility and the coefficient of storage were greater for the former. Other things being equal, well yield is approximately proportional to the coefficient of transmissibility.

In this investigation the Theis nonequilibrium formula (Theis, 1935, p. 519-524) was used to analyze the pumping tests, and the Theis recovery method (Wenzel, 1942, p. 95-97) was used to analyze the recovery data of pumped wells.

Cenozoic Alluvium

Most wells tapping the alluvium produce water only from the lower part of the saturated sand and gravel. The upper part in many places contains fine sand, which is difficult to screen, and in some areas the shallow alluvium contains polluted water. Wells that tap a representative section of the alluvium and that are suitable for testing were found only in the area of the slumpage trough.

A pumping test was made in March 1957 at well G-163, which taps the deep Cenozoic alluvium in the trough about 5 miles south of Wink (see fig. 9). The well taps the Cenozoic alluvium at a depth interval of 320 to 400 feet. The radioactivity log of a nearby well, G-165, indicates that the section of alluvium is at least 600 feet thick, about 475 to 500 feet of which may be saturated. The coefficient of transmissibility as determined during the recovery of the water level in the well was 25,000 gpd per foot; however, this is not representative of the thickness of the alluvium which may be considerably greater than the screened section.

On the basis of the coefficient of transmissibility derived from the test, the theoretical drawdowns for different periods of continuous pumping at different distances from a well discharging 1,000 gpm have been computed by assuming a coefficient of storage of 0.15 (see fig. 10). The assumed coefficient of storage is typical of many areas where ground water occurs under water-table conditions. The figure illustrates conditions in an extensive and homogeneous aquifer. Actual drawdowns may be appreciably greater or less than those indicated because of inhomogeneities or boundaries.

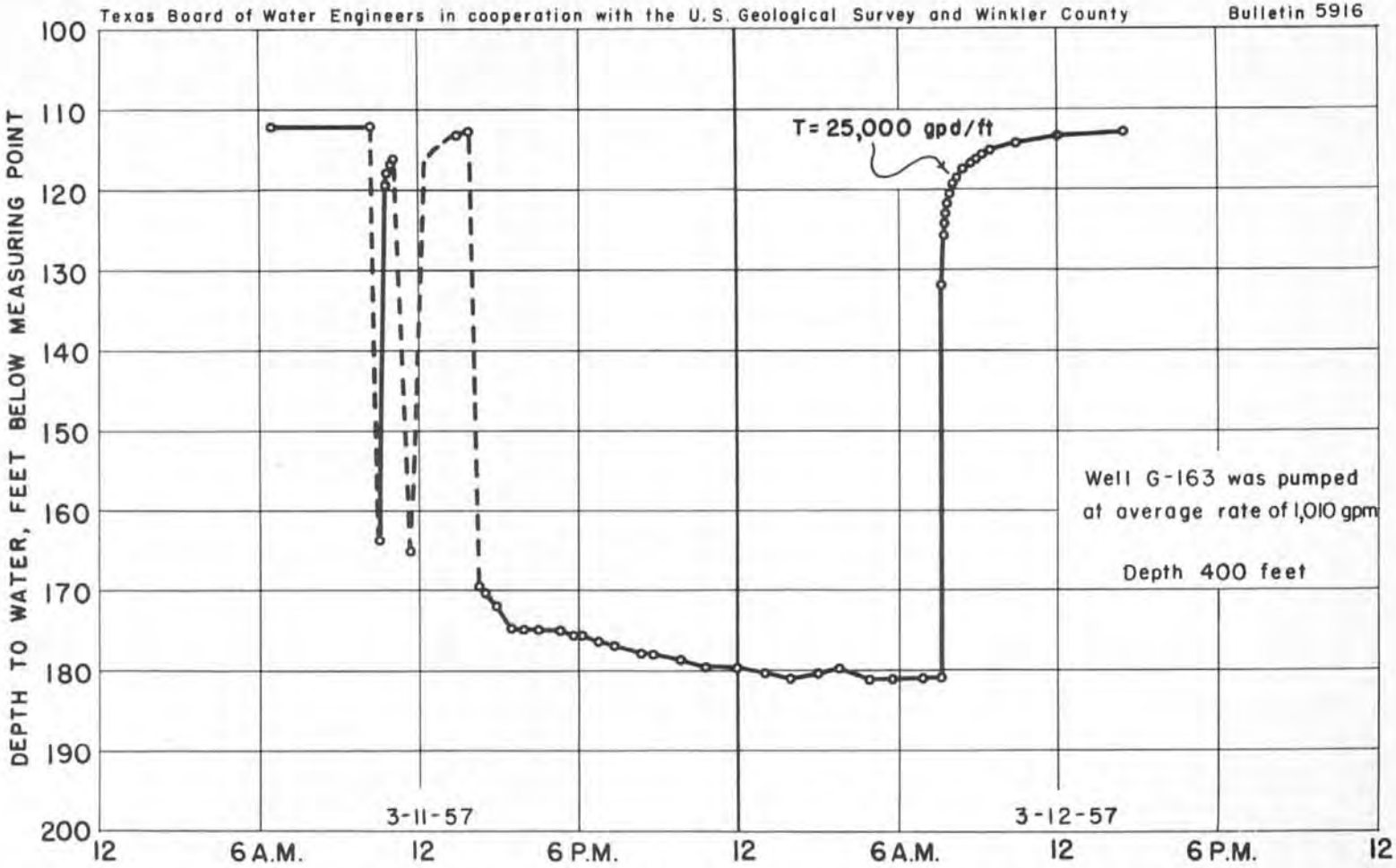


FIGURE 9. - Results of pumping test of well G-163, Winkler County, Tex.

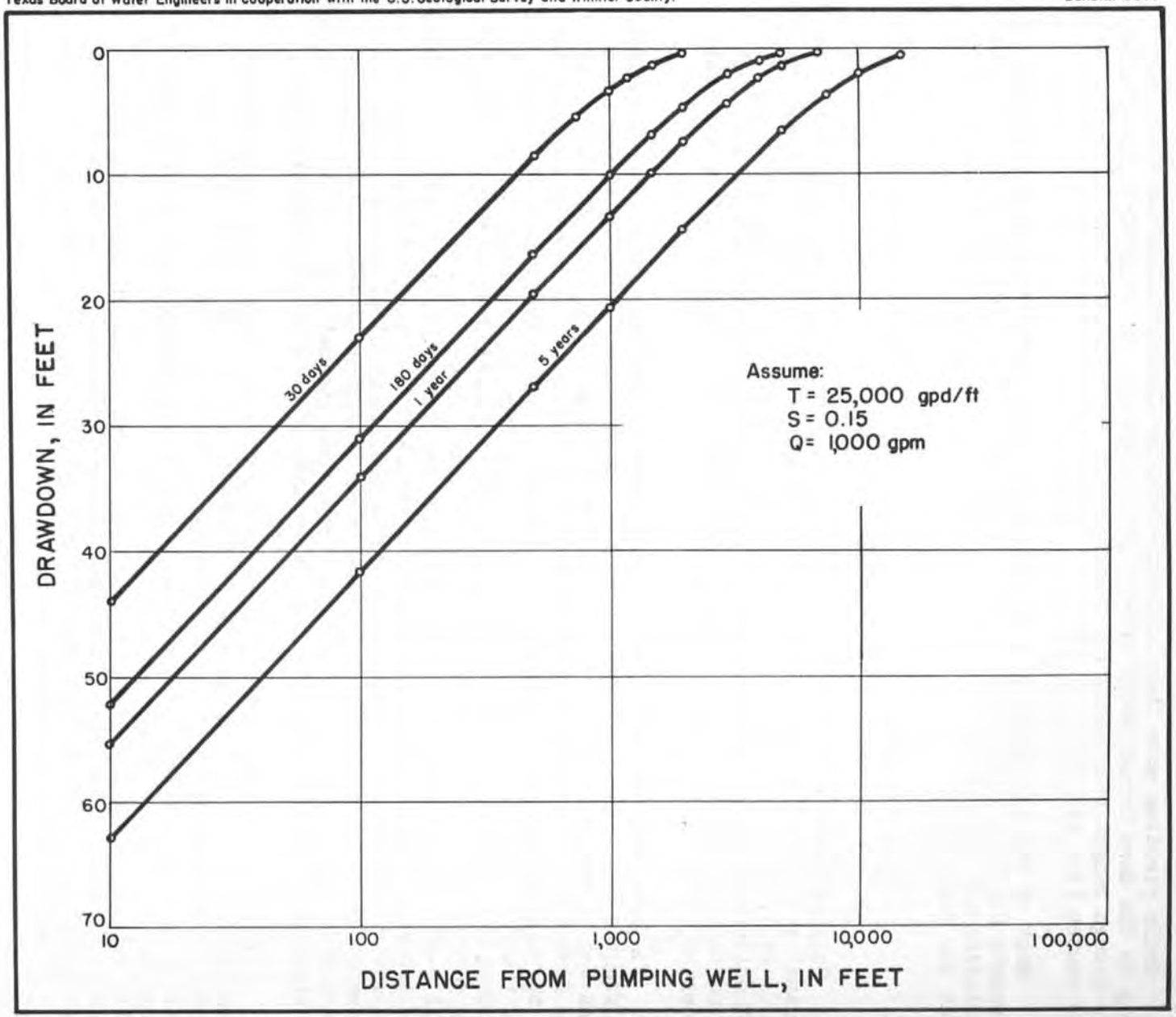


FIGURE 10.– Theoretical drawdown in an infinite aquifer due to pumping.

11.00049

Wells yielding more than 1,000 gpm from the Cenozoic alluvium were found only in the deep trough south of Wink. The thickness of saturated deposits in the trough ranges from about 100 feet near the edge to more than 1,000 feet near the center (see pl. 5).

Most of the wells, other than windmill wells, that tap thinner sections of Cenozoic alluvium yield between 100 and 300 gpm. The alluvium in Winkler County, excluding the area of the deep alluvial trough, has an average thickness of about 100 feet.

Santa Rosa Sandstone

Pumping tests were made on 5 wells tapping the Santa Rosa sandstone--3 municipal wells, D-277, 291, 299 in Kermit, 1 well 5½ miles north of Kermit, D-49, and 1 well, G-92, 4 miles east of Wink. Water levels were observed in well D-293 while well D-299 was being tested, and in well D-279 while well D-291 was being tested. Coefficients of transmissibility were determined from all tests except the one on well G-92.

The data and results of the pumping tests on the city wells are summarized on figures 11, 12, and 13, and in table 4. The entire thickness of the Santa Rosa was tested only in well D-291; well D-277 penetrated about two-thirds of the formation, and well D-299 penetrated less than half. The results show that in the tested area the coefficient of storage ranges between 0.00024 and 0.00029, and the coefficient of transmissibility ranges from at least 37,000 gpd per foot at well D-299 at the eastern edge of the city to perhaps as little as 12,000 gpd per foot at well D-277 on the west side of town. However, the large yield of well D-277 suggests that the computed value for transmissibility may be in error. The transmissibility at well D-299 was determined from the first half hour of the water-level-recovery data and reflects conditions close to the pumped well, whereas values from the observation wells were determined from later data and are indicative of average conditions over a more extensive area. The coefficient of transmissibility in the more extensive area is about 25,000 gpd per foot.

The pumping tests, electric logs, and yields of other wells in the Santa Rosa sandstone in the county indicate that the highly productive zone found at Kermit is not extensive in all directions. A study of the electric logs of wells penetrating the Santa Rosa suggests that the formation at Kermit is more permeable than it is north and south of Kermit. The yields of all other water wells tapping the Santa Rosa are much smaller than those of the three wells tested at Kermit. However, the water-bearing properties of the formation are unknown throughout most of Winkler County, informative data on the area southeast of Kermit being especially scarce.

The analysis of data from the pumping test suggests a hydrologic barrier, probably a less permeable portion of the aquifer near pumped well D-299. Data from the two observation wells, D-291 and D-293, may be used to determine the position of a point on the boundary if the boundary actually does prevent the movement of water and if the aquifer has certain other idealized properties. Although conditions are not ideal and the boundary undoubtedly is only a less permeable part of the aquifer, the position as calculated from the data may be considered approximately correct.

11.00050

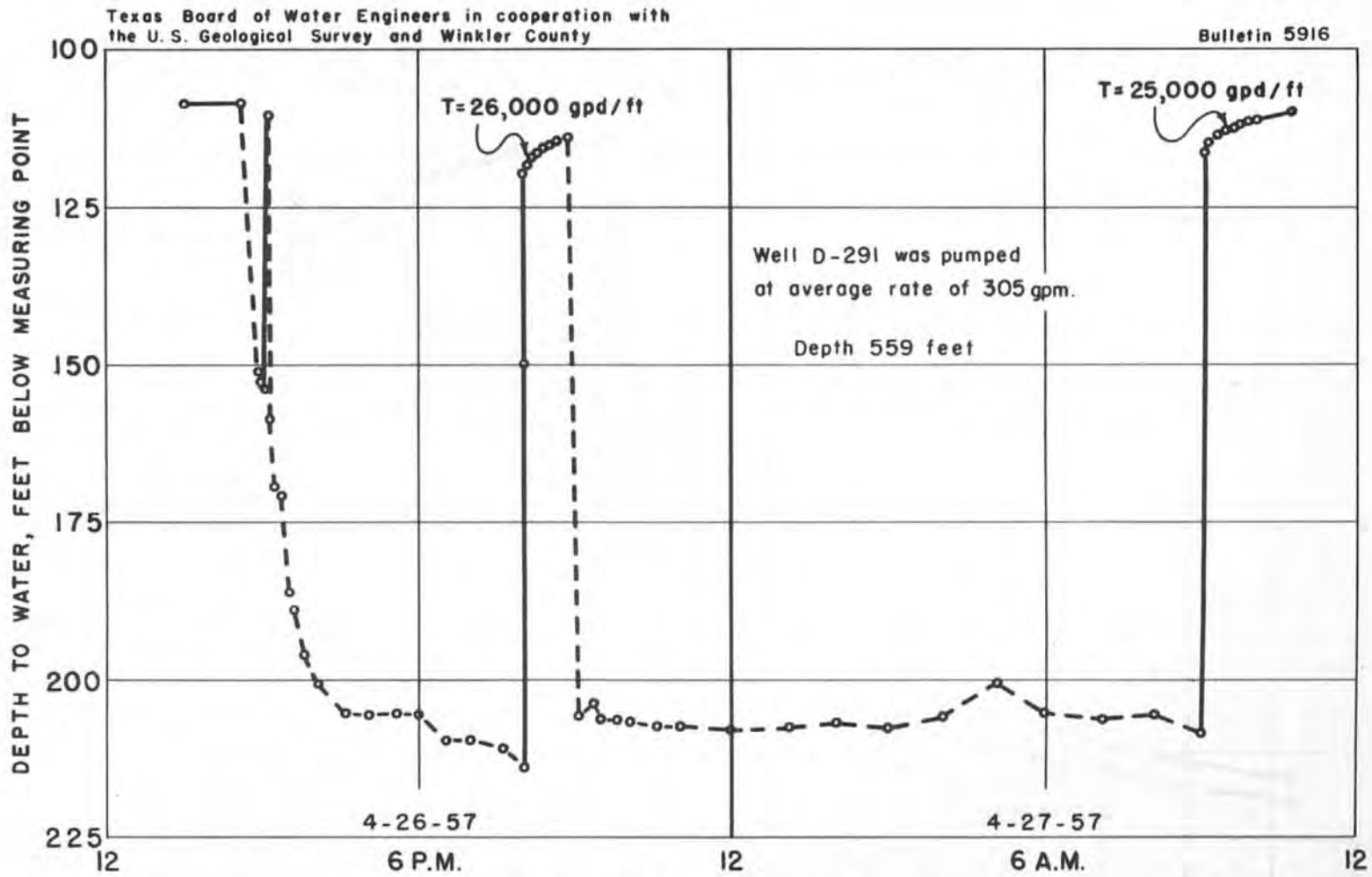


FIGURE 11.- Results of pumping test of well D-291, Winkler County, Tex.

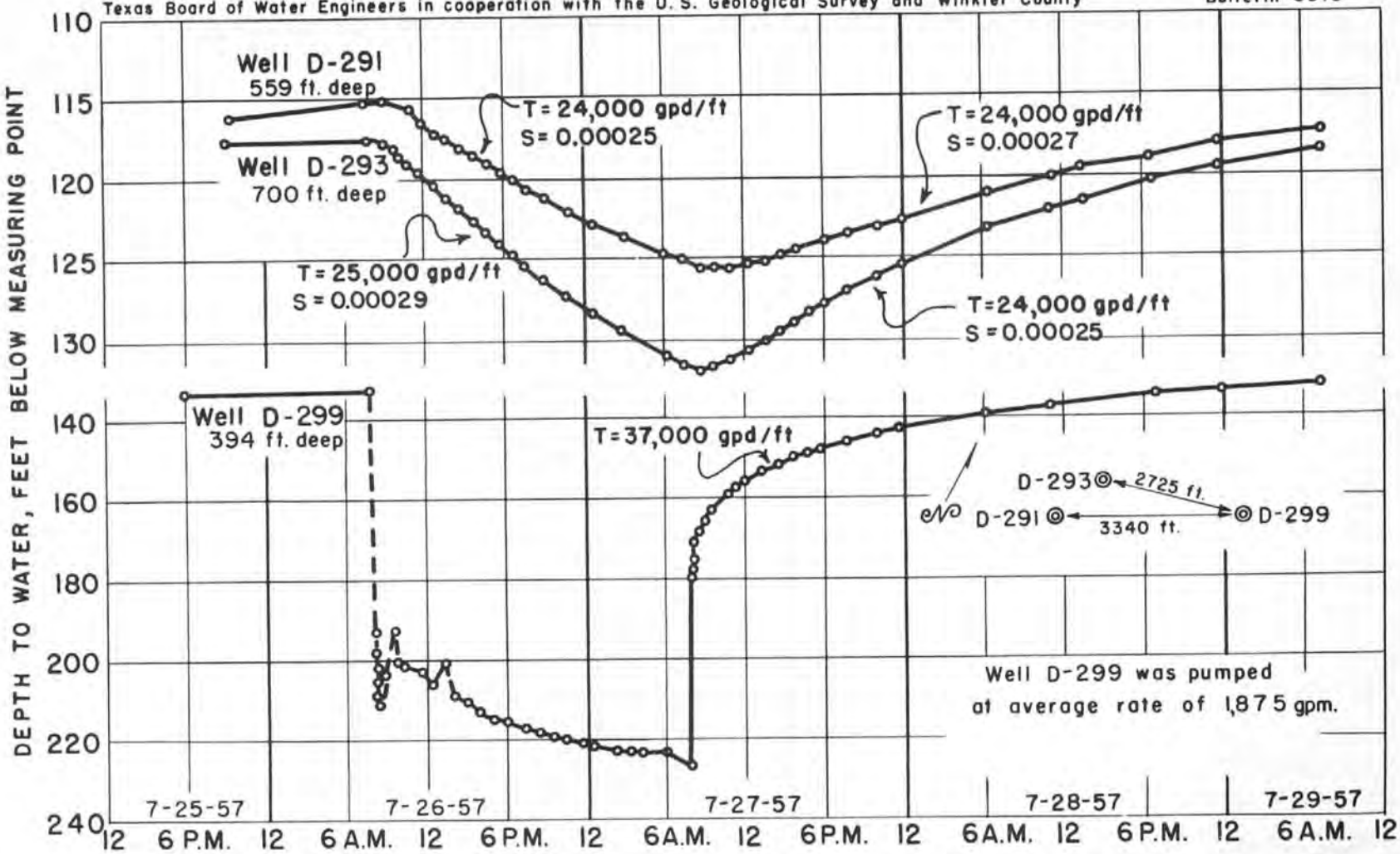


FIGURE 12.- Results of pumping test of well D-299, Winkler County, Tex.

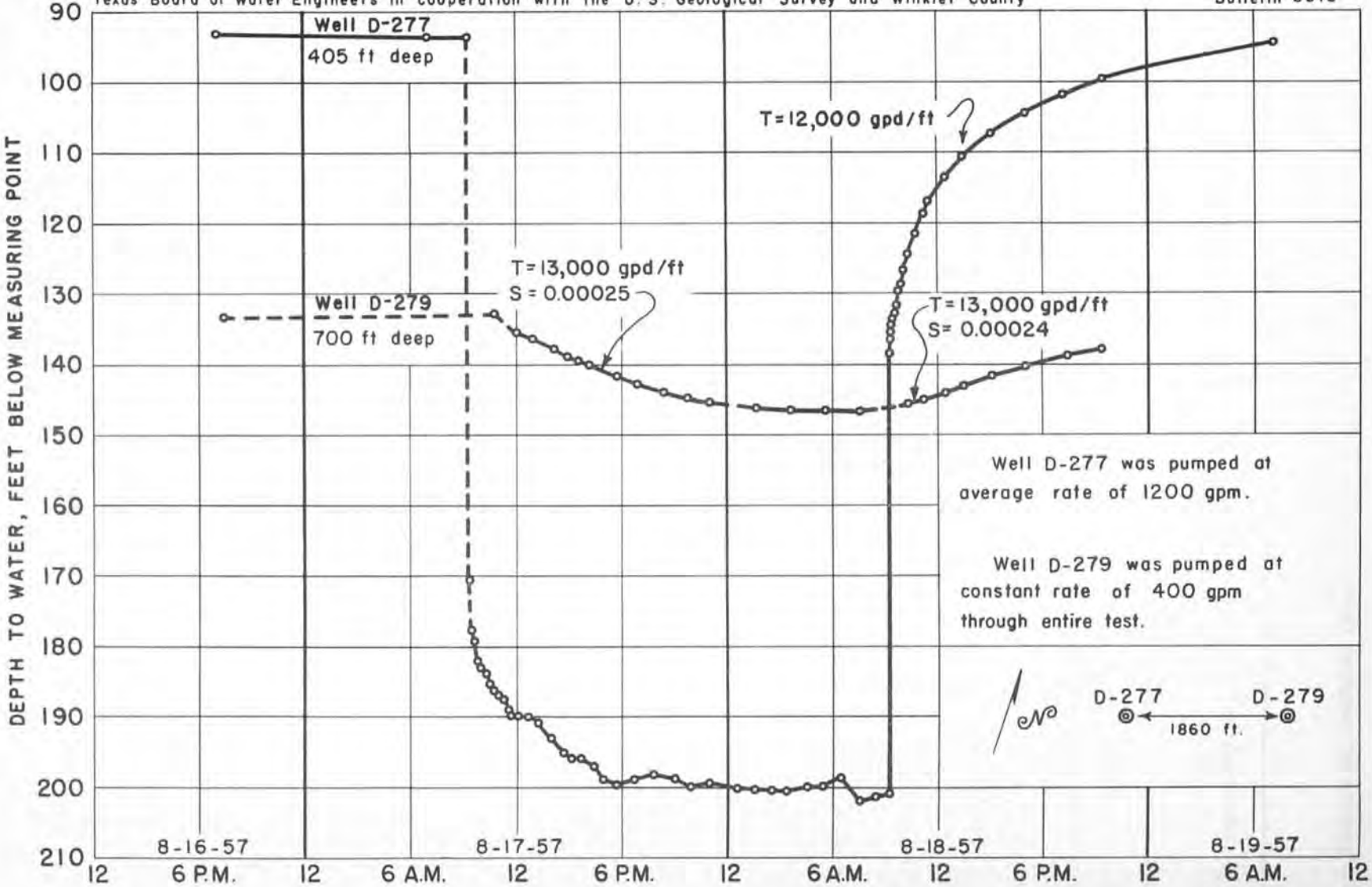


FIGURE 13.- Results of pumping test of well D-277, Winkler County, Tex.

Table 4--Results of pumping tests on wells tapping the Santa Rosa sandstone at Kermit, Winkler County, Tex.

Discharge well	Observation well	Part of hydrograph analyzed	Coefficient of transmissibility (gpd per foot)	Coefficient of storage	Thickness of sandstone section as determined from electric logs (feet)
D-291	D-291	Recovery	25,000	-	192 (full section)
D-299	D-291	Drawdown	24,000	0.00025	192
D-299	D-291	Recovery	24,000	.00027	192
D-299	D-293	Drawdown	25,000	.00029	-
D-299	D-293	Recovery	24,000	.00025	-
D-299	D-299	Recovery	37,000	-	66
D-277	D-279	Drawdown	13,000	.00025	192
D-277	D-279	Recovery	13,000	.00024	192
D-277	D-277	Recovery	12,000	-	107

11.00054

The data were analyzed by the "method of images" described by Ferris (Wisler and Brater, 1949). The position of the point on the hypothetical boundary was determined by a graphical method devised by Moulder (Knowles and others, 1952, p. 94-95). Figure 14 shows the point to be about half a mile north of well D-299. Some of the test data from the other wells in the city also suggests that the highly productive zone in the Santa Rosa sandstone is limited in extent, but the data are not adequate for determining boundary locations.

Plates 4 and 6 show Kermit to be structurally lower than the area north and south. Whether the structure is related to the boundary condition is unknown. However, it is postulated that the permeable zone in the Santa Rosa at Kermit is due to fracturing associated with the structural pattern, and is not extensive to the north. Further test drilling and test pumping are needed to define more accurately the extent and hydraulic characteristics of the highly productive fractured zone.

The pumping tests of wells D-49 and G-92 show that the transmissibilities at these sites are much less than those in Kermit.

QUALITY OF GROUND WATER

The quantity and character of the dissolved minerals in natural ground water depend on the physical structure and chemical composition of the rocks and soils that have been in contact with the water. The duration of contact, the temperature and pressure, and the minerals already dissolved are other factors that determine the chemical quality of the water. Contamination or pollution by various means may change the character of a water. Organic materials are the common polluting agents. However, pollution may result from mixing with highly mineralized water; such may be the case in some areas of Winkler County where highly mineralzed water produced with oil is placed in earthen pits.

The largest use of ground water in Winkler County is that by industry and for public supply; consequently, importance is placed on the mineral constituents affecting the character of the water for such uses. Partial and preliminary analyses of 166 samples from 158 wells (table 9) include the determination, in parts per million, of silica, iron, calcium, magnesium, sodium and potassium bicarbonate, carbonate, sulfate, chloride, fluoride, nitrate, and dissolved solids. A part per million is a unit weight of a constituent in a million unit weights of water.

An earlier investigation of the chemical character of ground water in Winkler County (Forbes, Lang, and Lance, 1941) gave results of analyses by chemists of the Works Progress Administration. The analytical methods used are not of the same order of accuracy as those of later analyses, but the results may be used to estimate the general quality of the water.

The chemical suitability of drinking water may vary from place to place. Standards set forth by the U. S. Public Health Service (1946) for water used by common carriers in interstate commerce and generally accepted as standards for public supplies, and the commonly accepted standard for nitrate are given below. The concentrations of chemical substances preferably should not exceed the following limits:

Constituent	Parts per million
Iron (Fe and manganese (Mn) together	0.3
Magnesium (Mg)	125
Sulfate (SO_4)	250
Chloride (Cl)	250
Fluoride (F)	1.5
Nitrate (NO_3)	45
Dissolved solids	500 (1,000 permitted)

Table 5 shows the chemical suitability, as compared to these standards, of ground water of various formations in Winkler County. Samples were collected from particular areas throughout the county and are considered representative of such areas.

More than half the samples analyzed for fluoride had concentrations exceeding the limit of 1.5 ppm. Most of the public-supply wells, however, yielded water having concentrations within the limits, although some had water whose fluoride content was as high as 2.6 ppm. Data collected by various agencies have demonstrated that fluoride in the drinking water of children reduces the incidence of tooth decay (Dean, Arnold, and Elvave, 1942), but that concentrations exceeding 1.5 ppm may cause mottling of tooth enamel when the water is used continuously (Dean, Dixon, and Cohen, 1935).

Samples whose nitrate concentration exceeded 45 ppm came from 9 wells that were less than 150 feet deep. The high nitrate content may be the result of pollution from surface sources. In places where it is necessary to tap the extremely shallow water, special precautions should be taken during well construction to exclude possible seepage from surface sources. However, high nitrate content of some waters may be natural and not necessarily the result of pollution. Nitrate concentrations exceeding 45 ppm have been related to the occurrence of the disease methemoglobinemia ("blue babies") in infants (Maxcy, 1950).

About two-thirds of the determinations from 158 wells show that the water contains less than 1,000 ppm of dissolved solids, and more than 80 percent of the analyses show less than 2,000 ppm of dissolved solids.

The principal constituents causing hardness of water are calcium and magnesium. An increase in hardness causes an increase of soap consumption in washing and laundering processes and of formation of scale in boilers and other equipment. About two-thirds of the samples from 148 wells for which hardness determinations were made show that the water needs to be softened for most domestic and many industrial uses. A hardness classification commonly used by municipalities is as follows: Less than 60 ppm. soft; 61-120 ppm, moderately hard; 121 to 200 ppm, hard; and more than 200 ppm, very hard. Water whose hardness exceeds 200 ppm generally requires some softening before being used for most purposes.

Silica in certain concentrations forms a hard scale in boiler equipment. Moore (1940, p. 263) proposes the following permissible concentrations: Less than 150 psi (pounds per square inch of steam pressure), 40 ppm; 150-250 psi, 20 ppm, 251-400 psi, 5 ppm; and more than 400 psi, 1 ppm. Of 129 samples from wells of all formations 46 contained more than 40 ppm.

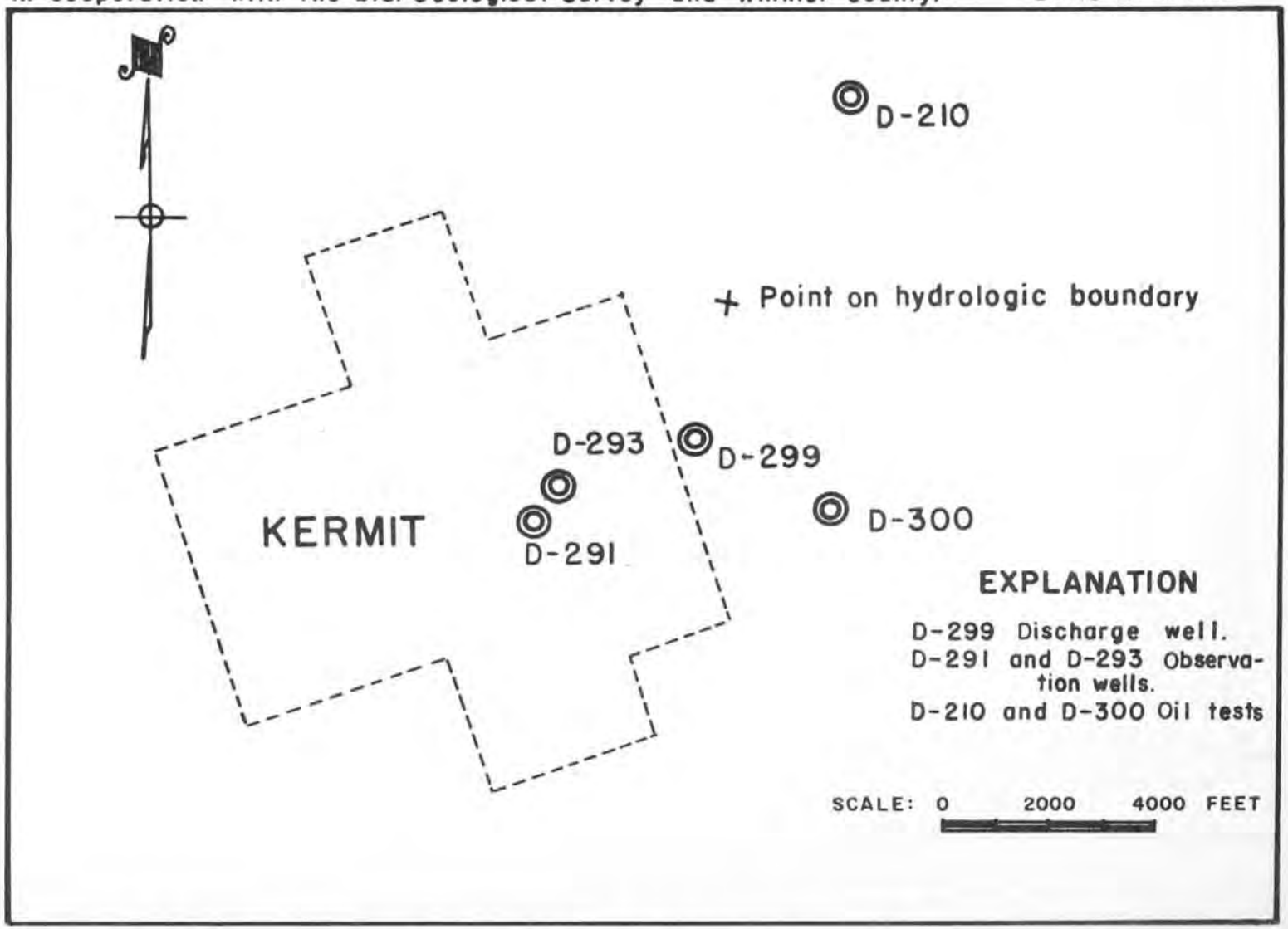


FIGURE 14.–Location of a point on a hypothetical hydrologic boundary, near Kermit, Winkler County, Tex.

Table 5.--Chemical suitability of ground water, by geologic formation, in Winkler County, Tex.

Geologic units	Fe (Iron)		Mg (Magnesium)		SO_4 (Sulfate)		F (Fluoride)		Cl (Chloride)		NO_3 (Nitrate)		Dissolved solids			
	Number of determinations	Member of Values exceeding 0.3 ppm	Number of determinations	Number of Values exceeding 125 ppm	Total determinations	Determinations exceeding 250 ppm	Total determinations	Determinations exceeding 1.5 ppm	Total determinations	Determinations exceeding 250 ppm	Total determinations	Determinations exceeding 45 ppm	Total determinations	Determinations exceeding 500 ppm	Determinations exceeding 1,000 ppm	Determinations exceeding 2,000 ppm
All wells*:	4	0	151	10	157	64	106	64	158	38	134	9	158	86	56	24
Cenozoic rocks	1	0	104	7	110	47	71	45	111	29	89	6	111	61	40	17
Cenozoic rocks and Santa Rosa sandstone	2	0	23	1	23	5	17	6	23	4	21	1	23	9	6	3
Cretaceous rocks	0	0	2	0	2	0	2	2	2	0	2	1	2	1	0	0
Santa Rosa sandstone	1	0	18	0	18	9	13	8	18	1	18	1	18	11	7	2
Rustler formation	0	0	2	2	2	2	2	2	2	2	2	0	2	2	2	2

* Includes two wells not identified with a formation.

1111.00058

Most of the ground water in the fresh-water aquifers of the county is suitable for irrigation. However, new supplies should be tested and compared with standards proposed by the U. S. Salinity Laboratory Staff (1954, p. 69-82) before using them for irrigation. These standards characterize irrigation water by the content of dissolved salts, the relative proportion of sodium to the other cations, the concentration of boron and other toxic elements, and sometimes the bicarbonate concentration in relation to the sum of the calcium and magnesium concentrations.

Cenozoic Alluvium

Most of the public-supply wells tapping the Cenozoic alluvium yield water of a chemical quality acceptable for drinking. However, table 9 shows that the fluoride content of public-supply wells, D-47, D-137, D-138, D-278, D-294, E-15, and G-111 exceeds the limit set by the U. S. Public Health Service and may cause mottling of children's teeth.

Wells B-6, C-2, E-12, E-19, E-24, and H-64 in alluvium yield water having a nitrate content exceeding 45 ppm. These are shallow windmill wells supplying water to ranches, and may be polluted with organic matter from the surface.

About two-thirds of 102 samples collected from wells tapping the alluvium had a hardness of more than 200 ppm, but most of the public-supply wells yield water having a hardness between 28 and 200 ppm. However, some wells tapping the alluvium in areas that have been polluted by oil-field wastes yield water having a hardness as much as 6,330 ppm. Half of 86 water samples had silica concentrations of more than 40 ppm and in many of the remainder the concentrations exceeded 20 ppm.

Waterflooding projects in Winkler County use both fresh and saline water; much of the saline water is treated to reduce its corrosiveness. Most of the wells tapping the alluvium which are used in waterflooding yield fresh water; however, well D-245, a polluted well, yields water having a dissolved-solids content of 71,100 ppm.

Areas of Ground-Water Pollution

The ground water in the Cenozoic alluvium appears to have been polluted in several areas in Winkler County. Probably most of the pollution has been caused by leakage from earthen disposal pits for saline water produced from oil wells. Plate 8 shows by a diagrammatic method (Stiff, 1951, p. 15-17) the relationship of the principal ions in water from selected wells tapping the Cenozoic alluvium. The diagrams in figure 15 represent water from the oil-producing strata in the Hendrick field (table 5). The chemical constituents are represented by two diagrams. The shaded diagrams show the concentrations of cations and anions, in equivalents per million. The blank diagrams show the percentage relationship of equivalents per million of the cations and the anions, commonly called "percentage reacting values."

The distinct similarity of the diagrams representing the water from wells C-50, F-15, F-21, F-30, F-37, G-4, G-38, G-60, and G-109 (pl. 8), which tap the Cenozoic alluvium in the vicinity of the Hendrick oil field, and the diagrams representing the water produced with the oil in the Hendrick field (fig. 15)

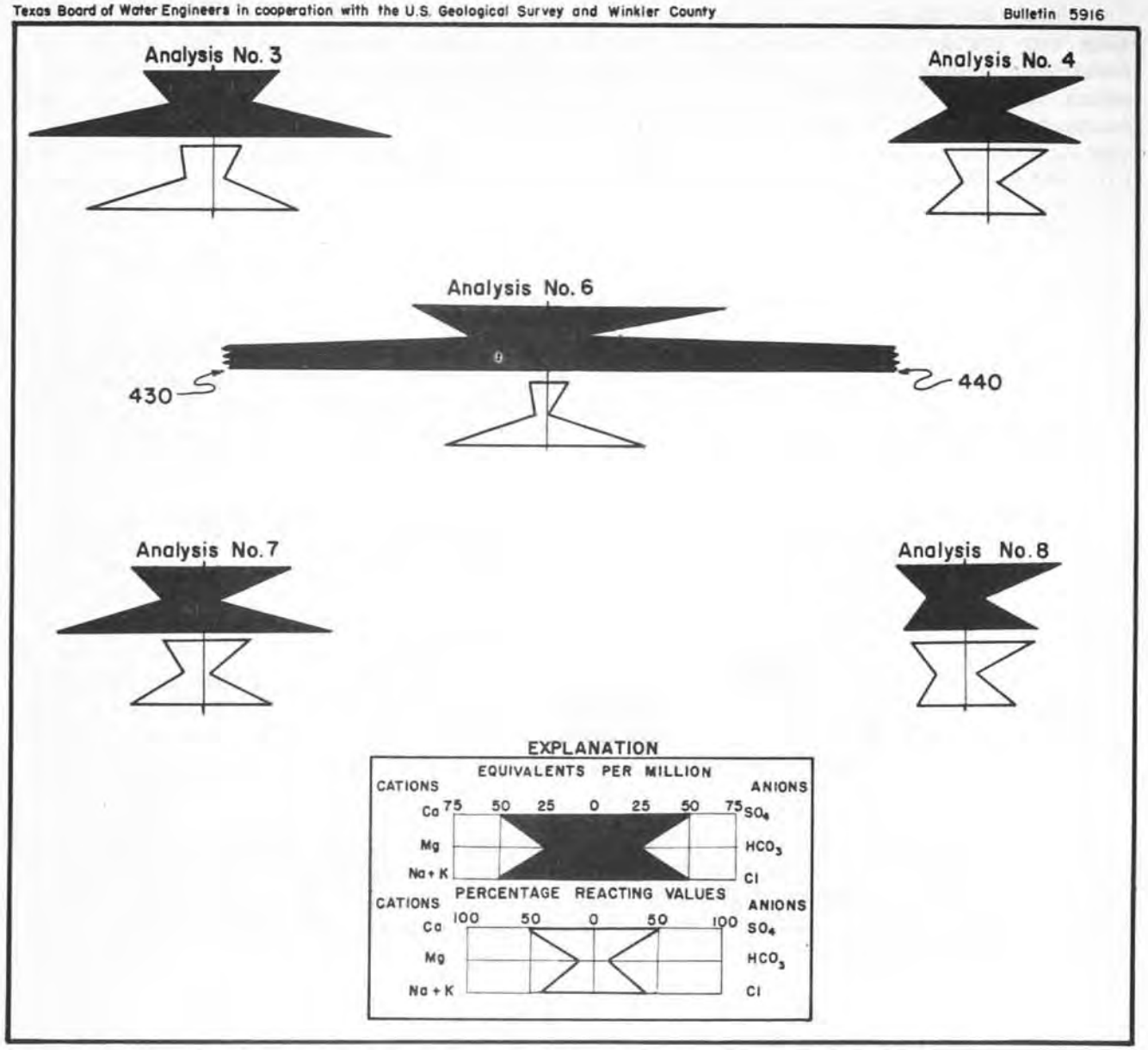


FIGURE 15.- Diagrams showing relationship of the principal ions in water produced with the oil in the Hendrick oil field, Winkler County, Tex. (See pl. 8 for locations.)

suggests that the alluvium is being polluted. Chemical analyses of samples from the water wells (table 9) show a dissolved-solids range between 1,430 ppm at well G-109 and 4,670 ppm at well F-21. The wells range in depth from 90 to 210 feet and draw water from the top or near the top of the saturated alluvium. The chloride content of the samples from the Hendrick oil field range between 1,190 ppm and 15,600 ppm (table 6). A comparison of analyses of samples taken from well F-15 in 1940 and in 1956 (table 9) indicates that most of the pollution has taken place since 1940. Two other water wells in the area, F-14 and G-111, draw water from the alluvium below 180 feet and probably have not yet been polluted.

A short history of the Hendrick oil field will help to explain the source and extent of pollution in the area. Oil was found in the Seven Rivers formation in 1926 in the area that is now the Hendrick oil field. At first, oil production was rapid, but within 2 years the annual production began to decrease, so that by 1956 the field had been classified as a "stripper field" (Phifer, 1956, p. 29). Some wells were producing water in late 1927, and 3 months later the wells were producing 0.5 to 98 percent water (Ackers, De Chicchis, and Smith, 1930). By 1930 all the 562 oil wells in the field were producing large amounts of water. Correlation between the yearly water production reported by some oil operators and the number of producing wells each year shows that about 800,000 acre-feet of water was produced from the field from 1937 to 1957 -- an average of about 36 mgd during this 20-year period. As oil production per well decreased, the water production per well probably increased; however, the total fluid production has decreased and there have been fewer producing wells each year. In 1957 the operators of the Hendrick field reported a water-production rate of about 14.5 mgd (table 3), about 13.7 mgd of which was placed in surface pits or directed to a communal disposal lake, about 1.5 miles northwest of Wink; the rest was used in secondary-recovery projects.

The production of saline waste water in the other oil fields of Winkler County was about 3.7 mgd (table 3), 3.4 mgd of which was placed in earthen surface pits. More than 1 mgd was placed in surface pits in the Kermit oil field, where chemical analyses show evidence of severe pollution in one area. A sample of water from well D-245 had a chloride concentration of 41,000 ppm and a specific conductance of 82,200 micromhos (pl. 8 and table 9). The oil-field water going into a surface pit about 100 feet away had a concentration of 40,900 ppm of chloride and a specific conductance of 82,100 micromhos (table 6, analysis 9).

Well D-93 (pl. 8) was polluted probably by brine associated with projects of dissolving underground salt sediments for storing liquefied-petroleum gases. Undoubtedly, other localized areas near surface sources of highly mineralized oil-field disposal water are being similarly polluted.

Other areas possibly polluted are shown on plate 8 by the diagrams for wells C-5, D-29, D-154, D-163, and H-81. However, it is uncertain whether these wells are polluted from surface sources or if the water is naturally highly mineralized, owing to poor circulation of water.

Areas of Fresh and Naturally Saline Water

The water in some wells that tap the Cenozoic alluvium is naturally saline. Saline water is produced from wells C-39 and F-5 in the western part of the county, wells E-24, H-7, and H-35 in the eastern part, and wells A-1, B-6, B-14, B-17, B-18, and D-5 in the northern and northeastern parts which either are remote from

Table 6.--Analyses of ground water produced from oil wells, Winkler County, Texas

Analysis No.	Owner and source of sample	Oil field	Producing horizon	Analyst	Date of collection	Constituents in parts per million: Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$	Dissolved solids	pH	Remarks
1	Ralph Lowe Salt water disposal pit	Block 21 (Delaware sand)	"Delaware" sand Permian	U.S.G.S.	8-16-57	-	-	-	-	-	-	138,000	-	-	-	Two producing oil wells in this lease.
2	Ohio Oil Co. M. J. Hill well 1	Halley	Devonian	Dowell, Inc.	11-20-56	-	4,470	975	25,600	623	1,180	49,700	-	-	-	
3	Stanolind Oil & Gas Co. Ida Hendrick well A-1	Hendrick	Seven Rivers formation Permian	U.S. Bur. of Mines	1935	-	679	258	2,160	1,180	1,630	3,400	-	9,320	-	Well depth 3,077 ft.
4	Gulf Producing Co. Hendrick well B-20	do	do	do	1935	-	709	243	1,150	372	2,350	1,700	-	6,600	-	
5	Lion Oil Co. Ida Hendrick well D-1	do	do	do	1935	-	918	1,060	7,820	1,320	5,270	12,100	-	28,600	-	Well depth 2,885 ft.
6	J. W. Starr Ida Hendrick well 1	do	do	The Western Co.	1956	-	1,400	510	9,950	763	4,520	15,600	-	-	7	
7	Atlantic Oil & Refining Co. Separator water going into pit on Hendricks "F" lease	do	do	U.S.G.S.	6-28-57	15	710	236	1,720	615	2,310	2,520	2,740	7,820	7.1	Separator gathers fluid produced by oil wells on this lease.
8	Skelly Oil Co. Hendrick well 1	do	do	do	5-15-47	-	720	244	755	407	2,330	1,190	2,800	5,440	-	Well pumped 5,000 bbls of water to 25-30 bbls of oil in 1947.
9	Harlon Producing Co. Separator water going into pit on Central State Bank lease	Kermit	Yates sandstone Permian	do	6-26-57	-	-	-	-	566	-	40,900	6,560	-	-	Specific conductance 82,100 micromhos.
10.	Prairie Oil & Gas Co. J.B.Leck well 1	Leck	Seven Rivers formation Permian	U.S. Bur. of Mines	1931	-	176	156	2,020	1,318	95	3,050	-	6,[illegible]	-	H_2S present.

Table 6.--Analyses of ground water produced from oil wells, Winkler County, Texas--Continued

Analysis No.	Owner and source of sample	Oil field	Producing horizon	Analyst	Date of collection	Constituents in parts per million									pH	Remarks
						Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na + K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$	Dissolved solids		
11	Superior Oil Co. Wheeler Devonian well 3	Wheeler (Devonian)	Devonian	The Western Co.	1949	104	16,500	4,280	48,600	227	773	110,000	-	180,000	6.2	
12	Superior Oil Co. Wheeler Ellenburger well 1	Wheeler (Ellenburger)	Ellenburger group Ordovician	do	12-13-49	410	1,720	909	15,200	711	617	27,400	-	46,500	8.0	H_2S present.
13	Superior Oil Co. Wheeler Fusselman well 3	Wheeler Northwest (Fusselman)	Fusselman limestone Silurian	do	7-23-49	1,236	13,400	2,060	31,100	425	1,140	78,000	-	126,000	6.2	
14	Superior Oil Co. J. B. Walton well 1-A	Wildcat	Ellenburger group Ordovician	do	10-18-56	-	2,360	1,290	25,100	314	3,400	44,000	-	-	7	H_2S present.
15	Stanolind-Westbrook Salt-water lake	West of Hendrick field	-	U.S.G.S.	10-10-56	-	393	297	5,390	91	3,090	8,420	3,450	18,300	7.9	Some oil operators divert the water produced with oil to this lake.

apparent sources of pollution or contain water of a different chemical character than that of the possible pollutants. In general, these wells are found in areas where the configuration of the water-table surface suggests a very slow rate of ground-water movement, and this slow rate is probably responsible for the salinity.

The remainder of the alluvium that is remote from polluting sources contains fresh water. Most of the wells samples yield water having a dissolved-solids content of less than 500 ppm. Several wells close to areas of probable pollution or naturally occurring saline water have a dissolved-solids content less than 1,000 ppm.

Santa Rosa Sandstone

The analyses of water samples from 18 wells tapping the Santa Rosa sandstone (table 9) indicate that the water is more mineralized in the eastern half of the county than in the western half. Water having the least mineralization is found in the vicinity of Kermit, which is near the main recharge area to the Santa Rosa. The samples from 3 wells more than 1,000 feet deep in the eastern part of the county had dissolved-solids contents ranging from 1,110 to 4,090 ppm; samples from wells in the rest of the county generally contained less than 1,000 ppm dissolved solids. Well G-3, whose water contained 1,260 ppm of dissolved solids, may be polluted by waste water from a nearby oil field.

The samples from 23 wells tapping both the Cenozoic alluvium and the Santa Rosa sandstone ranged in dissolved solids from 128 ppm to 10,700 ppm (table 9). Six of the more mineralized samples came from wells that may have been polluted, probably through the Cenozoic alluvium, from saline water and brine from nearby oil fields. The other 17 samples contained less than 1,000 ppm of dissolved solids.

Hard water high in sulfate and fluoride apparently is common in the Santa Rosa sandstone. Nine samples had a hardness of more than 200 ppm and more than 250 ppm of sulfate. Eight of the 13 determinations of fluoride exceeded 1.5 ppm. Concentrations of fluoride and sulfate generally were lower in samples from wells tapping both the Santa Rosa and the alluvium.

Other Aquifers

The water samples collected from two wells tapping the Rustler formation were either highly saline or briny (table 9). The sample from well D-193 contained 18,400 ppm dissolved solids, and the sample from D-160 contained 157,000 ppm.

Two samples from wells probably tapping Cretaceous formations in the northeastern part of the county contained less than 1,000 ppm of dissolved solids. The sample from well B-9 had a hardness of 186 ppm and the sample from well B-10, taken in 1957, had a hardness of 414 ppm and a nitrate content of 49 ppm.

Chemical analyses of water produced with oil from strata of Ordovician to Permian age are shown in table 6. The analyses are incomplete, but they evaluate the most important constituents. Nearly all the water produced from oil wells in the Hendrick and Leck fields is only moderately saline. The rest of the oil fields in Winkler County apparently produce brine with the oil.

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CONCLUSIONS

Winkler County has a large supply of fresh ground water in storage. About 5 to 7 million acre-feet of stored ground water is available for recovery through wells in the explored area, and an unknown quantity of fresh water is available in the unexplored areas. A small amount of water from precipitation recharges the aquifers. The average rate of withdrawal from wells in 1956 was about 8.2 mgd, or about 9,200 acre-feet per year, most of the water being used by industry and for public supply.

Some of the water wells in the Santa Rosa sandstone at Kermit and in the alluvium south of Wink yield more than 1,000 gpm each. In the vicinity of Kermit the larger capacity wells yielding 400 to 1,875 gpm tap fractures in the Santa Rosa sandstone. In other areas the Santa Rosa is much less productive. The potential yield of the Santa Rosa sandstone in several areas, chiefly in the eastern part of the county, has not yet been determined.

The alluvium is more productive south of Wink, in the deep alluvium-filled trough, than elsewhere in the county. Most of the wells in the thinner alluvium are completed in the bottom gravels of the aquifer to avoid pumping excessively fine sand commonly found in the upper section. Wells in the alluvium constructed to screen the largest sections of the formation available will have the largest yields.

Fresh water has been displaced or has become polluted by mixing with saline water in areas where oil fields continually discharge waste water into earthen surface pits. The extent and the significance of the pollution are chiefly dependent on the amount of oil-field water being discharged and its degree of mineralization. Pollution will continue to be a serious threat to the fresh-water supplies in Winkler County until a more effective waste-disposal system is adopted.

Generally, water from the Cenozoic alluvium and the Santa Rosa sandstone in Winkler County has a moderate mineral content; however, the high content of fluoride and silica, and extreme hardness in some areas make it undesirable for certain uses. Saline water from the Rustler formation is used only for water-flooding in the production of oil by secondary-recovery methods. Some oil operators are recycling the saline water being produced with the oil in such recovery operations. The recycling, or injection of the saline water or brine back into the oil-producing formations, lessens the danger of ground-water pollution and also decreases the consumption of fresh water.

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Table 7.--Records of wells in Winkler County, Tex.

All wells are drilled unless otherwise noted in remarks column. Logs (electric, radioactivity, and micro) in files of Texas Board of Water Engineers.

Water level: Reported water levels and altitudes of land surface given in feet; measured water levels and altitudes of land surface given in feet and tenths.

Method of lift and type of power: A, airlift; B, butane; C, cylinder; E, electric; G, gasoline; N, none; Ng, natural gas; T, turbine; W, windmill. Number indicates horsepower.

Use of water: D, domestic, Ind, industrial; Irr, irrigation; N, none; P, public supply; S, stock.

Well No.	Owner	Driller	Altitude of land surface (ft.)	Date completed	Depth of well (ft.)	Diameter of well (in.)	Water-bearing unit	Water level: Below land-surface datum (ft.)	Water level: Date of measurement	Method of lift	Use of water	Remarks
*A-1	Allen Cowden	--	3064.7	Old	87	14	Cenozoic alluvium	70.8	Nov. 1, 1956	C,W	S	
A-2	R. M. Evans well 1	Humble Oil & Refining Co.	3105	1951	13,615	--	--	--	--	N	N	Oil Test. Electric log Q-17. 1/
*A-3	B. F. Jenkins	--	--	--	100	6	Cenozoic alluvium	45.3	Jan. 12, 1957	C,W	S	
A-4	Tom Lineberry	--	2998.6	1952	80	5	do	36.7	Sept.19, 1956	C,W	S	
B-1	Mary K. E. Bauer	--	--	Old	90	6	do	73.6	Jan. 29, 1957	C,W	S	East Witcher well.
*B-2	do	--	--	--	75	6	do	64.1	do	C,W	S	Cased to bottom; slotted and gravel-packed.
B-3	do	--	--	1948?	75	6	do	69.7	do	N	N	Abandoned temporarily.
*B-4	do	--	--	1945?	75	6	do	67.7	do	C,W	S	Owner's "Double well."
B-5	do	Humble Oil & Refining Co.	3165.2	1951	101	8	do	73.4	do	N	N	Supplied water for drilling oil test.
*B-6	Mary K. E. Bauer	--	--	1945?	88	6	Cenozoic alluvium	85.0	Jan. 29, 1957	C,W	S	Cased to bottom; slotted. Water reported unfit for domestic use.
B-7	do	--	--	1945?	85	6	do	--	--	C,W	S	Water reported unfit for domestic use.
B-8	R. M. Evans well C-2	Humble Oil & Refining Co.	3184	1952	8,872	--	--	--	--	N	N	Oil test. Electric log Q-19. 1/

* See footnotes at end of table.

Reference 12

aquifers of west texas

Report 356

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Chapter 12

The Dockum Aquifer in West Texas

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Introduction

The Dockum aquifer, classified as a minor aquifer by the Texas Water Development Board (TWDB), extends over approximately 42,000 mi^2 primarily in the Panhandle region of north Texas (figs. 12-1, 12-2). A portion of the southern tip of the aquifer extends into Crane, Ector, Loving, Pecos, Reeves, Ward and Winkler Counties in West Texas. Although the Dockum aquifer can be an important source of groundwater for irrigation, public supply, oil-field activity, livestock and manufacturing purposes, deep pumping depths, poor water quality, low yields, and declining water levels have generally discouraged its use except locally.

The purpose of this article is to present a summary of the characteristics of the Dockum aquifer in West Texas. Much of the information presented in the article was obtained from previous literature and from TWDB records.

Physiography and Climate

The area overlying the Dockum aquifer in West Texas is generally flat with a gentle slope toward the southeast-flowing Pecos River, which drains much of the region. Drainage north and east of the Pecos River typically is closed, with runoff collecting in swales, sinks and playas (Ashworth, 1990). The climate of the region is semiarid, with hot summers and mild winters (Larkin and Bomar, 1983). Mean annual precipitation in the Pecos River Valley is approximately 10 inches, and lake surface evaporation about 80 inches/yr. (Larkin and Bomar, 1983).

Geologic Setting

The approximately 2,000-ft-thick Triassic sediments of the Dockum Group that form the Dockum aquifer consist of a series of alternating sandstones and shales (Cazeau, 1962). Individual sandstone units are light to dark or greenish-gray, buff, and red, and range in thickness from a few feet to about 50 ft. The red and maroon sandy shale units that separate the sandstones range in thickness from about 50 to 100 ft.

[1] Texas Water Development Board

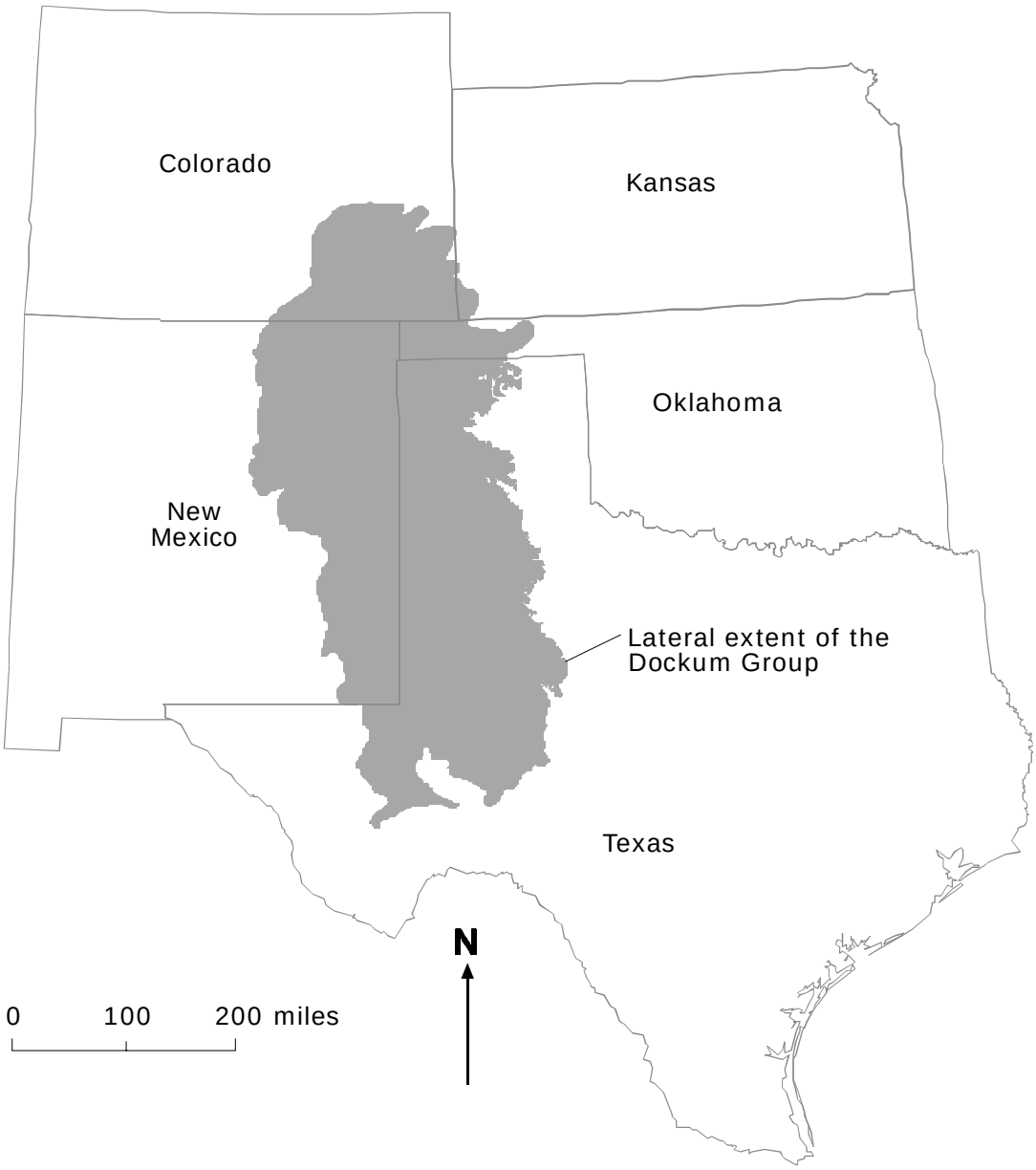

Figure 12-1: Location of the Dockum Group in Texas, New Mexico, Colorado, Kansas, and Oklahoma.

The formations within the Dockum Group (in ascending stratigraphic order) are: Santa Rosa Formation, Tecovas Formation, Trujillo Sandstone, and Cooper Canyon Formation. Locally the term *Santa Rosa* has been applied to the lower sandstone zones in the Dockum Group that may include all units of the Dockum Group except the upper mudstone.

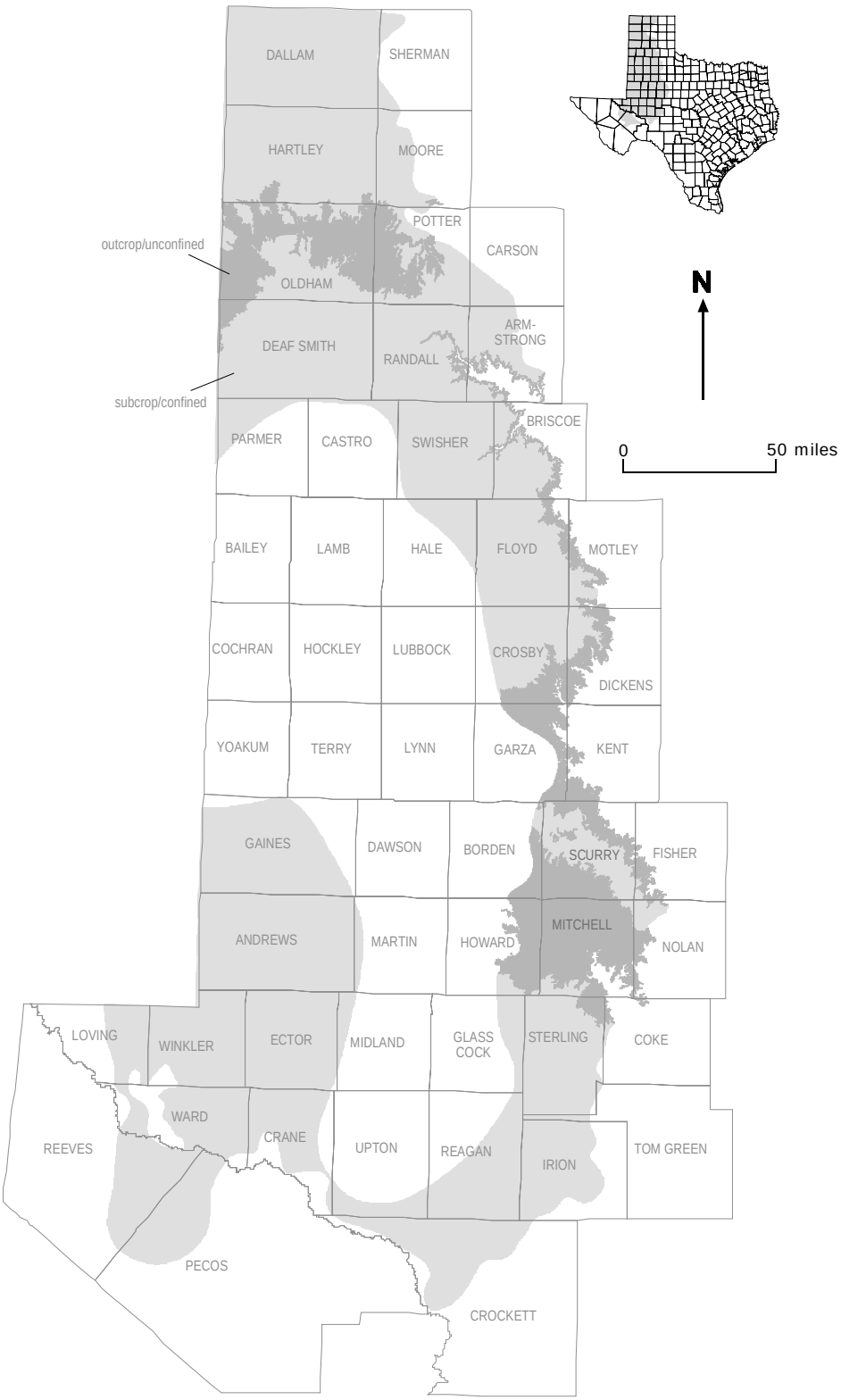

Figure 12-2: Location of the Dockum aquifer in Texas.

The basal unit, called the Santa Rosa Formation, rests unconformably on Upper Permian red beds and can be up to 130 ft thick (Lehman and others, 1992; Lehman, 1994a, b; Riggs and others, 1996). The Santa Rosa Formation is overlain by variegated mudstones and siltstones of the Tecovas Formation (Gould, 1907), which in turn is disconformably overlain by the 250-ft-thick Trujillo Formation composed of massive, crossbedded sandstones and conglomerates (Lehman, 1994a, b). The Cooper Canyon Formation consists of reddish-brown to orange mudstone, with some siltstone, sandstone and conglomerate (Lehman and others, 1992).

The Dockum Group is generally considered to represent sediments deposited in fluvial, deltaic, and lacustrine environments within a closed continental basin (McGowen and others, 1977, 1979; Granata 1981). The basin apparently received sediments from all directions, although in West Texas the source areas were primarily to the south and southwest (Fallin, 1989).

The beds of the Dockum Group are essentially horizontal, with very gentle dips toward the center of the main basin, whose axis trends approximately north-south. The dip varies considerably from location to location but is approximately 30 ft/mi (Rayner, 1963). In West Texas, the primary structural features are the Central Basin Platform in the east and the Delaware Basin in the west (Fallin, 1989).

The top of the Dockum Group is relatively flat and reflects the final filling of the Dockum Basin and the effects of postdepositional erosion. The opening of the Gulf of Mexico in the Cenozoic Period tilted the entire region toward the southeast.

Hydrogeology

Recoverable groundwater in the Dockum aquifer is contained within the many sandstone and conglomerate beds that are present throughout the sedimentary sequence. The coarse-grained deposits form the more porous and permeable water-bearing units, whereas the fine-grained sediments form impermeable aquitards (Fallin, 1989). Consequently, the better groundwater flow zones are developed in the lower and middle sections of the stratigraphic sequence, where the coarse-grained sediments predominate. Locally, any water-bearing sandstone within the Dockum Group is typically referred to as the Santa Rosa aquifer. In the Pecos River Valley, the Dockum aquifer is usually known as the Allurosa aquifer (White, 1971).

In West Texas, the Dockum aquifer overlies Permian-age beds and is overlain by the Cenozoic Pecos Alluvium. The aquifer typically is under confined or partially confined conditions where Dockum Group sandstones are in contact with the Cenozoic Pecos Alluvium.

Water Levels and Groundwater Flow

Potentiometric maps drawn from water levels measured by the TWDB between 1981 and 1996 indicate that groundwater flow in the Dockum aquifer in West Texas is generally to

the southeast. Hydrographs of wells located in Crane, Ector, Loving, Reeves, Ward and Winkler Counties show a variety of water-level fluctuations. In Loving, Ector and Reeves Counties, the water table appears to have declined markedly whereas in Ward and Winkler Counties, it has remained relatively stable or has declined only slightly. The most significant water-level decline (almost 85 ft) was recorded in well 28-39-401 in Ector County. The decline presumably was the result of pumping in a nearby municipal water-supply well.

Recharge

The Dockum aquifer is recharged by precipitation over areas where Dockum Group sediments are exposed at the land surface. Groundwater in the confined portions of the Dockum aquifer most likely originated as precipitation that fell on outcrops in eastern New Mexico. This recharge ceased when the Pecos and Canadian River Valleys were incised during the Pleistocene between the present-day Dockum aquifer in Texas and the paleo-recharge areas to the west (Dutton and Simpkins, 1986).

The Dockum aquifer is also recharged by upward leakage from the underlying Permian aquifer (Bassett and others, 1981; Bentley, 1981; Wirojanagud and others, 1984; Orr and others, 1985). Downward leakage into the Dockum aquifer occurs from the overlying Cenozoic Pecos Alluvium as a result of hydraulic-head differences between the aquifers (Dutton and Simpkins, 1986; Nativ and Gutierrez, 1988). Estimated annual recharge for outcrop areas and other areas in contact with overlying aquifers for the entire Dockum aquifer in Texas is approximately 31,000 acre-ft.

Aquifer Properties

The hydraulic properties of the Dockum aquifer vary considerably from location to location. In West Texas, well yields measured by the TWDB ranged from approximately 23 gallons per minute (gpm) in Crane County to 353 gpm in Reeves County. Similarly, specific capacity ranged from 5.3 (Wink County) to 25 (Reeves County).

An aquifer test conducted on City of Kermit wells (Winkler County) by the TWDB in 1957 yielded an average transmissivity of 4,600 ft^2/day. These wells are completed in the Santa Rosa Sandstone that was described by Garza and Wesselman (1959) as a massive sandstone unit of limited areal extent. The storage coefficient was approximately 2.5×10^{-4}, which suggests that the aquifer in the test area is confined to partially confined.

Groundwater Quality

Groundwater in the Dockum aquifer generally is of poor quality. It is characterized by decreasing quality with depth, mixed types of water, concentrations of total dissolved solids (TDS) and other constituents that exceed secondary drinking water standards over most of the area, and high sodium levels that may be damaging to irrigated land.

The chemical quality of water in the Dockum aquifer in West Texas ranges from fresh (TDS <1,000 milligrams per liter [mg/L]) in outcrop areas to moderately saline (TDS between 3,000 and 10,000 mg/L). Fresh water generally is present only at the edges of the Dockum basin, especially in outcrop areas where the aquifer is recharged. TDS ranges from 473 mg/L (Winkler County) to 4,040 mg/L (Reeves County). Water from the Dockum aquifer is typically hard, with $CaCO_3$ concentrations ranging from 203 mg/L (Ector County) to 1,394 mg/L (Crane County).

Where overlain by the Cenozoic Pecos Alluvium, groundwater in the Dockum aquifer is characterized by Ca-SO_4-mixed-anion-type waters. Groundwater samples collected from Ector County had gross alpha particle concentrations of 6 to 23 picocuries per liter (piC/L). The MCL established by the Texas Natural Resource Conservation Commission for gross alpha particle activity limit is 15 piC/L. Groundwater samples from Crane County had maximum radium-226 and radium-228 concentrations of 6.8 piC/L and 5 piC/L, respectively. The MCL for combined radium-226 and radium-228 is 5 piC/L. The occurrence of uranium in the Dockum Group has been known for years (McGowen and others, 1977) and is the source of the high concentrations of radium-226 and radium-228 detected in the groundwater samples.

Sodium in groundwater is a constituent that has neither an MCL nor a secondary standard but is still a concern where the water is used for irrigation purposes. Sodium adsorption ratios higher than 18 (which typically result in excess sodium in the soils) were detected only in groundwater samples from Ector County. These same samples also had residual sodium carbonate (RSC) values greater than 2.5 meq/L, suggesting that the water was not suitable for irrigation.

Discharge

Discharge of groundwater from the Dockum aquifer occurs at pumping wells, small springs that contribute to stream base flow in the outcrop, evapotranspiration, and cross-formational flow. The greatest amount of discharge occurs from the pumping of wells installed in the aquifer.

Irrigation and public supply use is limited to areas of the Dockum aquifer where the water quality is acceptable, depth to water is shallow, and a sufficient thickness of sandstone exists to make the aquifer productive. Municipal users of Dockum aquifer water include the cities of Barstow, Kermit and Pecos. The Colorado River Municipal Water Authority also uses water from the Dockum aquifer.

Springs occur in areas where the Dockum sediments intersect the water table. Brune (1981) described springs issuing from the Dockum aquifer along the Pecos River Valley. Many of these springs are now dry or have lower flows than they did in the past.

Conclusions

The Dockum aquifer in West Texas occupies a relatively small area and is only locally important where sufficient sandstone thickness and acceptable water quality are present. High TDS concentrations and salinity limit its use for many purposes.

Recharge of the Dockum aquifer only occurs in areas where the sandstone units are exposed at the surface or are in contact with overlying aquifers. However, since much of the Dockum aquifer in West Texas is confined, it receives little recharge so any water withdrawn from it is not immediately replenished.

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Reference 13

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

TELEPHONE MEMO TO THE FILE

Please complete with typewriter or black pen.

Call to: (Paul Bentley) Quality Cleaners

Call from: Kandice Spera

Date of call: 9/24/13

File no.: Kermit PWS PA

Phone no.: (432) 586-3351

Subject: Potential Sources

Information for file: Onsite cleaning.

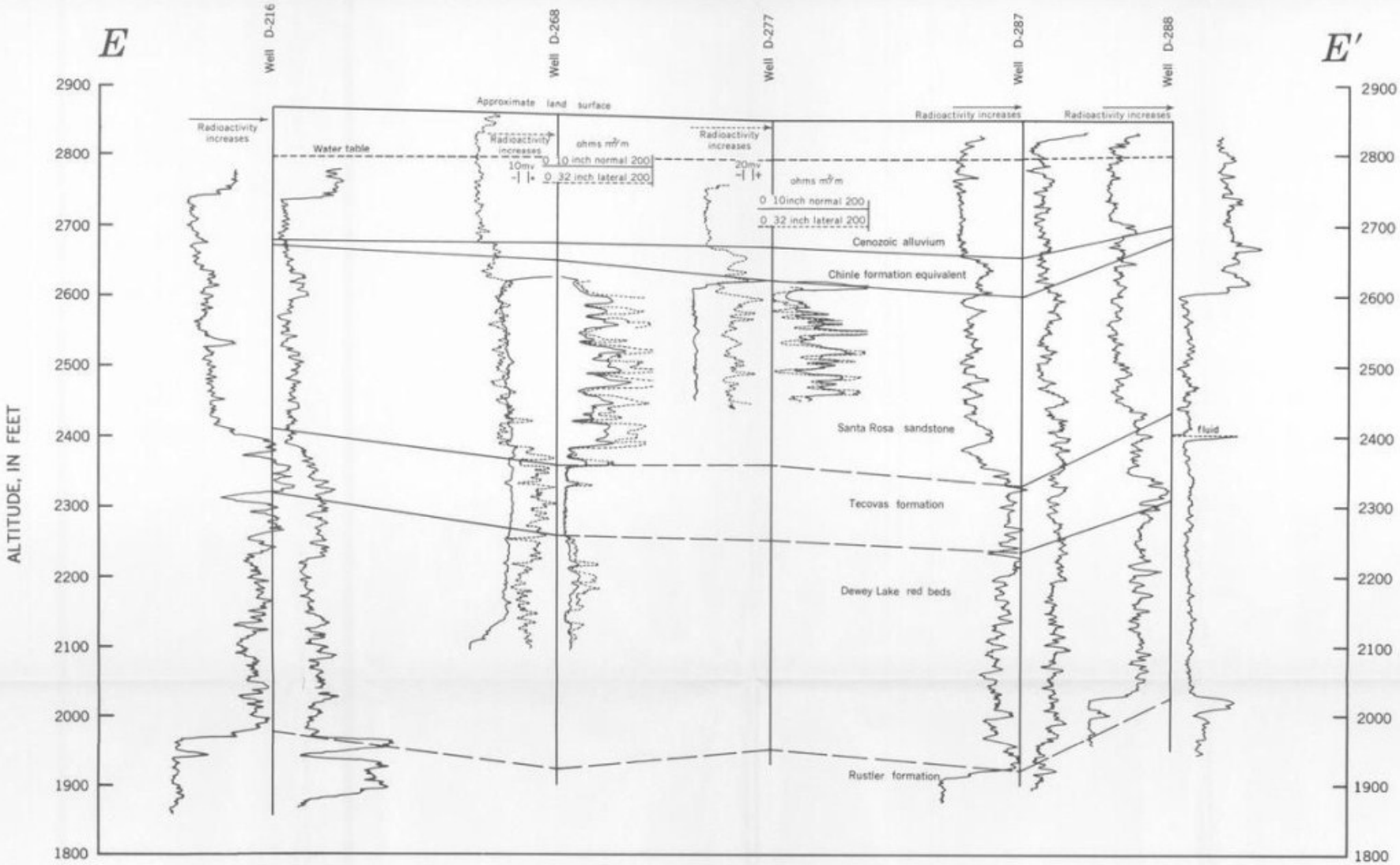
Uses petroleum-based cleaning solvents (flash 140 or 167). Paul Bentley believes it is a Exxon Product.

They do not use PCE or TCE, and doesn't think K+O Classic cleaners does either due to high cost.

No waste is stored or disposed. All chemicals evaporate, + any leftover chemicals are recycled back into the system.

Signed Kandra Spera

Reference 14



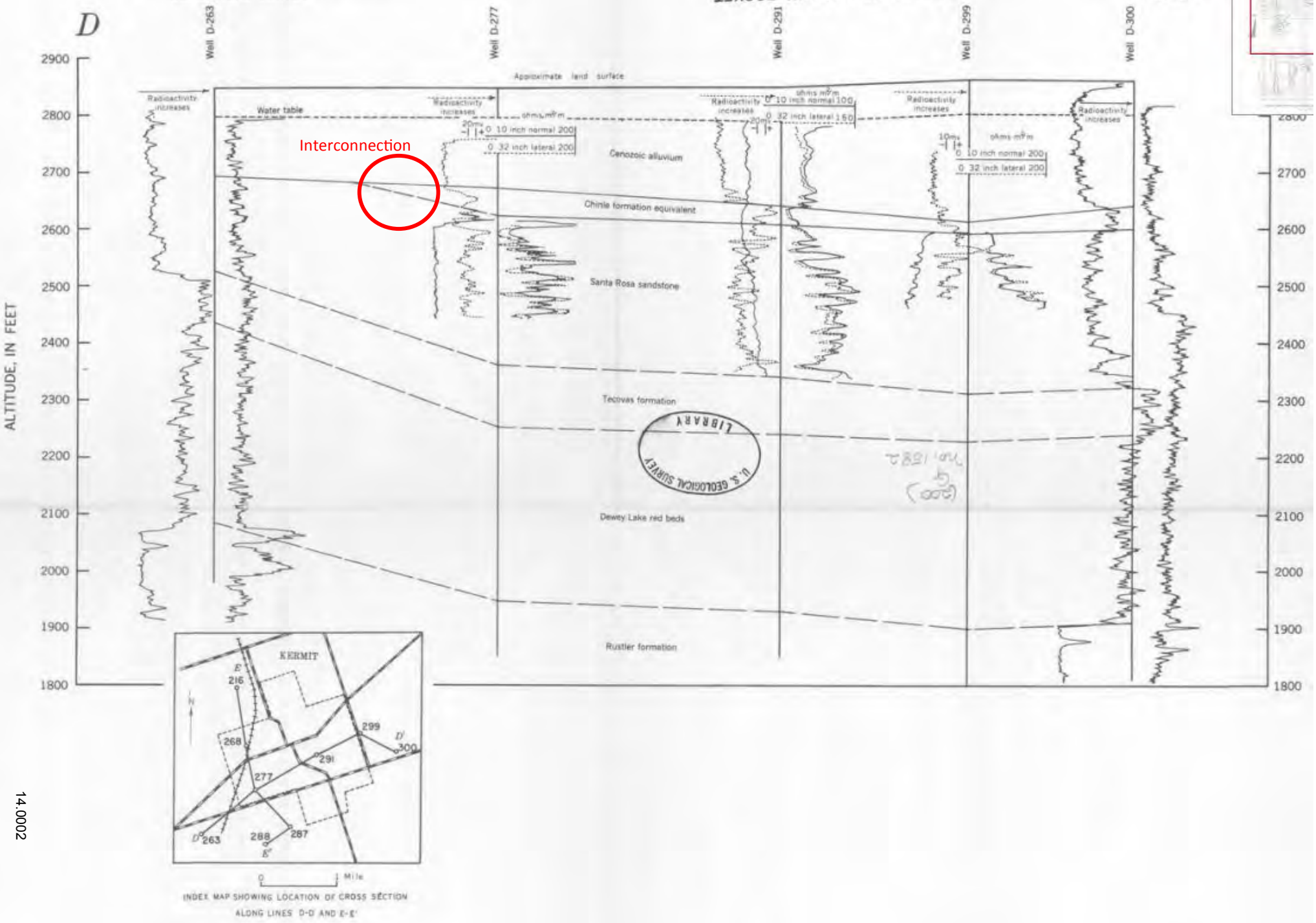
GEOLOGIC CROSS SECTIONS ALONG LINES D-D′ AND E-E′, VICINITY OF KERMIT, TEXAS

0 ½ 1 MILE

834032 O - 62 (In pocket) No. 7

14.0001

PLEASE REPLACE IN POCKET
IN BACK OF BOUND VOLUME



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Potato Farming

Local potato farm thrives with twice as many acres producing this year.
Economic Diversity...
With drought conditions making it more difficult for cattle breeding, CSS FARMS and SMITH RANCHES have joined together planting potatoes in February and after

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harvest planting rye for winter grazing for the cattle.

Kermit potato farm fills Frito-Lay niche

THE ODESSA AMERICAN ARTICLE 7-2004

Below is the article that was published in the Winkler County News on July 19, 2001 and photos of the harvest.

Local potato farm thrives with twice as many acres producing crop this year

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Kermit potato farm fills Frito-Lay niche

7-8-2004

THE ODESSA AMERICAN

By Julie Breaux

Odessa American

KERMIT — Pecos has its cantaloupe. Seminole has cotton and peanuts.

And now, with its potato-chip potato, Winkler County has joined other West Texas counties that support commercial farming.

In the next few days, CSS Farms will wrap up the harvest of 380,000 to 400,000 pounds of potatoes grown exclusively for snack-food giant Frito-Lay, said Dennis Janke, general manager of CSS Farms' Texas operations.

Technical changes — and a bit more rain this spring — helped improve the yield by about 100,000 pounds more than the previous three years, Janke said.

"Sometimes it can be a little bit harsh, but this year was more normal for the area," Janke said.

The potatoes grown just outside Kermit — about 40 miles west of Odessa — are made into Lay's

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potato chips, Ruffles and Wavy Lay's at several Frito-Lay plants in Texas, Janke said.

The West Texas crop "fills a niche" for Frito-Lay by closing gaps in harvest times, Janke said.

South of Kermit, the potatoes are grown on land owned by Kermit rancher and oilman Rick Smith, who said CSS Farms' representatives "just pulled into town cold turkey" and asked him if he would be interested in doing business with them.

Smith provides the land, irrigation pivots and water wells. CSS furnishes the labor and, along with Frito-Lay, is responsible for quality control, Smith said.

The lengths to which both companies go to ensure consistent quality fascinate Smith.

Applying fertilizer is akin to a scientific experiment, with little left to chance, he said.

"They don't like rain," Smith said. "When they put (fertilizer) on … they may put down three-quarters of an inch of water or an inch-and-a-quarter or one inch to try to get that fertilizer right were that tuber is," Smith said. "If it rains, they can't control the depth of that water."

And Frito Lay is "very, very strict" about ensuring that the potatoes meet their standards, Smith said.

When harvesting begins, Frito-Lay sends a representative to test their quality.

"When the potatoes come out, he'll get six to 10 of them, and he fries 'em right there, just like you'd do at the plant," Smith said. "And if they don't fry right, they'll reject the whole load."

Frito-Lay has never rejected a Winkler County crop, "but we know they wouldn't hesitate to do that," Smith said.

Smith attributed the success of the potato-chip farm to Winkler County's sandy soil, sweet water and low rainfall.

And yet, even though growing conditions are ideal there, this is the first commercial farm to

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operate in Winkler County, Smith said.

"This is it. It's an unusual deal to occur."

Unusual, maybe, but CSS Farms has been good for the county and the small town of Kermit, Smith said.

It's estimated the farm generates about $40,000 in tax revenues annually through the creation of about 30 to 40 jobs each year.

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Last Updated: Saturday, January 27, 2007

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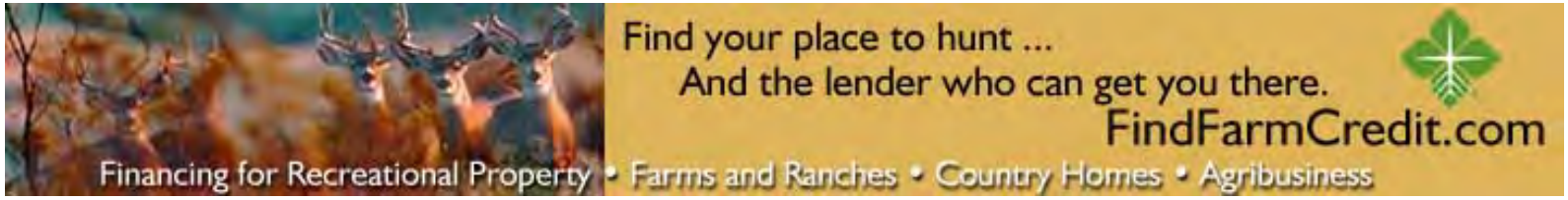

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Land for Sale near Kermit, Texas - Winkler County - 848292

Kermit, Texas | Winkler County

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Photo Tour

Pages: 1 | 2

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Platinum Seller

Caleb Matott
Broker Associate @
Legacy Real Estate

Details about the Land

County: Winkler	**Type**: Acreage w/House	**Acres**: 6743
Address:	**City**: Kermit	**State**: Texas
Zip: 79745	**Price**: Inactive	**Status**: Unavailable
Bedrooms: 4	**Baths**: 4	**Square Feet**: 5000

Description of the Land

Huge Reduction! Motivated Seller!

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The Smith Ranch This ranch is located just 3 miles South of Kermit on Hwy 18 to the East, with easy access. The ranch is 6743.5 acres of pasture land with 500 acres of pivot irrigated land. This is a sandy lome ranch with lots of grass. The ranch will run 175 to 200 head of cows. It is divided up into 4 pastures with excellent fences all the way. Inside one of the pastures at the Southeast part of the Ranch is a 640 acre pasture that is game fenced. This is an... more ideal pasture for exotics or a whitetail program. The 500 acres in irrigation is run by two 250 acre pivots. This has some great return which is hard to find in todays Ranch Market. The wildlife on this ranch boasts some of the states finest mule deer you will see. These deer have not been hunted. The neighbors are very large with minimal hunting also. The ranch also carries a solid blue quail crop year to year. There are approximately 16 to 17 water wells on the ranch that produce about 3500 gpms. This is also excellent quality of water. There are 4 sets of working pens that are in good shape. The other facilities are 50X100 shop close to the home and the main set of shipping pens. The home is a 2000 model 4 bed and 4 bath with huge living areas. The home is 5000sqft with a metal roof and a very nice addition to the ranch. This ranch is a rare find and has some great return on your money. Easy to get to with excellent roads all across the ranch. Also this is a very clean ranch with minimal oil field production on it. There are no minerals to convey.

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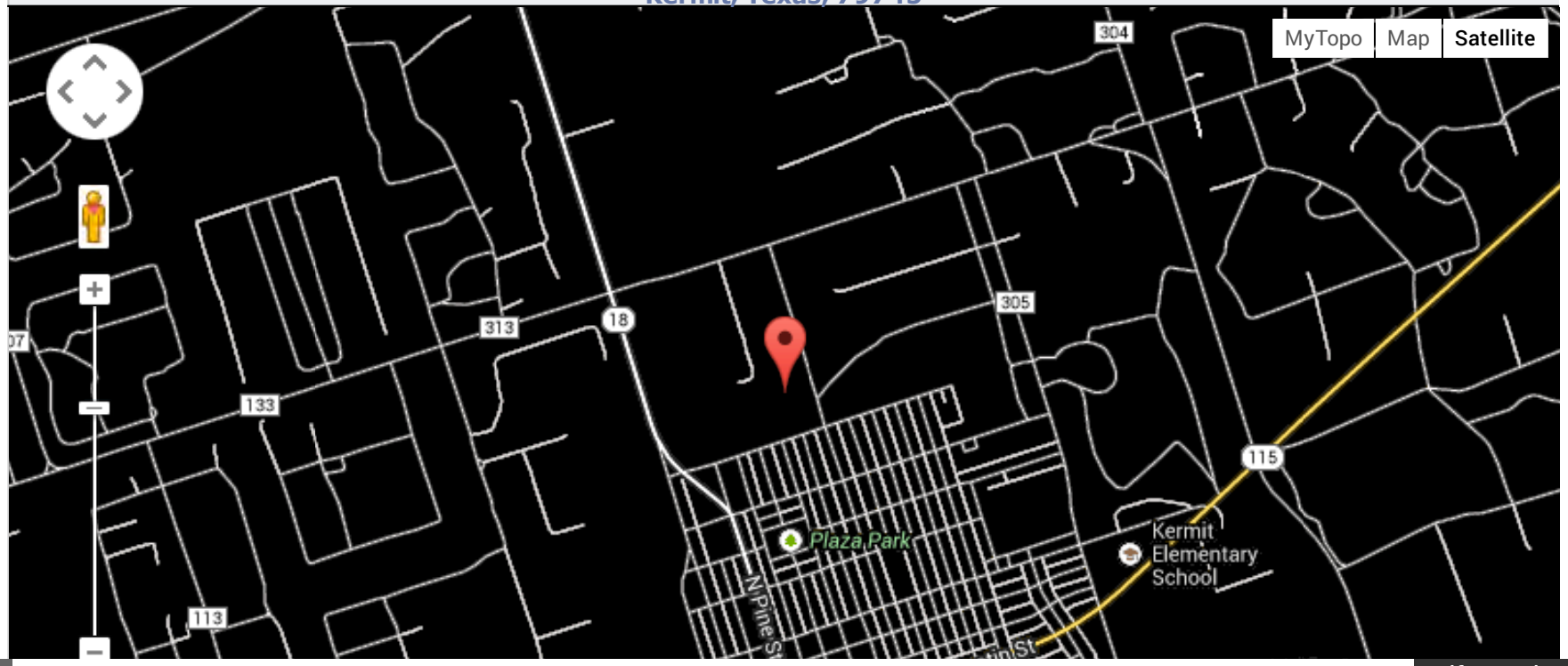
Kermit, Texas, 79745



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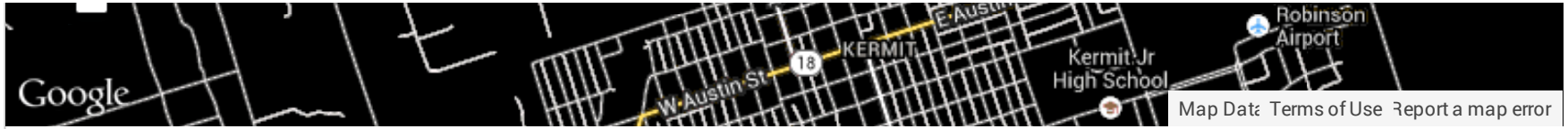

View in Google Earth

Contact Information

Company: Broker Associate @ Legacy Real Estate
Contact Name: Caleb Matott
Email: Click here to email contact
Phone Number: 432-349-3330
Fax: 432-618-0675
4400 N Big Spring, Ste 101
Midland, TX 79705

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Reference 17

Ranch Water Wells

OBJECT	Tracking Number	Well Owner	County	Well Address	Well City	Zip Code	Date of Well Completion	Undesirable Water Quality	Well Type	Latitude	Longitude
335838852	340612	Clearwater Ranch	Winkler	Sec 9, B5, PSL			Wed, 14 Aug 2013 00:00:00	no	Test	315032	1030221
335838862	340622	Clearwater Ranch	Winkler	Sec 9, B5, PSL			Wed, 14 Aug 2013 00:00:00	no	Test	315032	1030203
335838956	340716	Clearwater Ranch	Winkler	Sec 10, BLk B 5, PSL			Tue, 20 Aug 2013 00:00:00	no	Test	315006	1030132
335839191	340955	Clearwater Ranch	Winkler	Sec 12, Blk B 5, PSL			Fri, 23 Aug 2013 00:00:00	no	Test	314931	1030220
335839192	340956	Clearwater Ranch	Winkler	Sec 14, Blk B 5, PSL			Sat, 24 Aug 2013 00:00:00	no	Test	314858	1030423
335839211	340975	Clearwater Ranch	Winkler	Sec 14, Blk B 5, PSL			Sun, 25 Aug 2013 00:00:00	no	Test	314907	1030352
335839217	340981	Clearwater Ranch	Winkler	Sec 13, Blk B 5, PSL			Mon, 26 Aug 2013 00:00:00	no	Test	314914	1030320
335839222	340986	Clearwater Ranch	Winkler	Sec 13, Blk B 5, PSL			Thu, 22 Aug 2013 00:00:00	no	Test	314923	1030248
335839863	341635	Clearwater Ranch	Winkler	Sec 14, BLk B- 5, PSL			Mon, 26 Aug 2013 00:00:00	no	Test	314843	1030417
335839868	341640	Clearwater Ranch	Winkler	Sec 14, BLk B- 5, PSL			Fri, 23 Aug 2013 00:00:00	no	Test	314852	1030345
335839907	341650	Clearwater Ranch	Winkler	Sec 14, BLk B- 5, PSL			Fri, 23 Aug 2013 00:00:00	no	Test	314852	1030346
335839933	341676	Clearwater Ranch	Winkler	Sec 13, Blk B 5, PSL			Sun, 25 Aug 2013 00:00:00	no	Test	314901	1030314
335839935	341678	Clearwater Ranch	Winkler	Sec 13, Blk B 5, PSL			Sat, 24 Aug 2013 00:00:00	no	Test	314909	1030243
335839941	341684	Clearwater Ranch	Winkler	Sec 12, Blk B 5, PSL			Fri, 23 Aug 2013 00:00:00	no	Test	314917	1030217
335839943	341686	Clearwater Ranch	Winkler	Sec 14, Blk B 5, PSL			Sun, 18 Aug 2013 00:00:00	no	Test	314838	1030341
335839950	341694	Clearwater Ranch	Winkler	Sec 13, Blk B 5, PSL			Sat, 17 Aug 2013 00:00:00	no	Test	314847	1030309

335839951	341695	Clearwater Ranch	Winkler	Sec 13, Blk B 5, PSL	Sat, 17 Aug 2013 00:00:00	no	Test	314847	1030309
335839960	341704	Clearwater Ranch	Winkler	Sec 13, Blk B 5, PSL	Mon, 19 Aug 2013 00:00:00	no	Test	314856	1030237
335839964	341708	Clearwater Ranch	Winkler	Sec 12, Blk B 5, PSL	Tue, 13 Aug 2013 00:00:00	no	Test	314903	1030210
335840917	342659	Clearwater Ranch	Winkler	Sec 18, Blk B 5, PSl	Fri, 16 Aug 2013 00:00:00	no	Test	314828	1030306
335840918	342660	Clearwater Ranch	Winkler	Sec 18, Blk B 5, PSl	Tue, 20 Aug 2013 00:00:00	no	Test	314838	1030231
335840921	342663	Clearwater Ranch	Winkler	Sec 18, Blk B 5, PSl	Thu, 15 Aug 2013 00:00:00	no	Test	314810	1030259
335840923	342665	Clearwater Ranch	Winkler	Sec 18, Blk B 5, PSl	Wed, 21 Aug 2013 00:00:00	no	Test	314821	1030223
335840927	342669	Clearwater Ranch	Winkler	Sec 18, Blk B 5, PSl	Thu, 22 Aug 2013 00:00:00	no	Test	314821	1030222
335840930	342672	Clearwater Ranch	Winkler	Sec 18, Blk B 5, PSl	Wed, 14 Aug 2013 00:00:00	no	Test	314743	1030249
336163113	320870	Smith Rach c/o Parkhill, Smith & Cooper	Winkler		Fri, 07 Jun 2013 00:00:00	no	Public Supply	314931	1030122
335838870	340630	Clearwater Ranch	Winkler	Sec 10, B5, PSL	Sat, 17 Aug 2013 00:00:00	no	Test	315041	1030145
335838876	340636	Clearwater Ranch	Winkler	Sec 9, B5, PSL	Thu, 15 Aug 2013 00:00:00	no	Test	315007	1030240
335838882	340642	Clearwater Ranch	Winkler	Sec 9, B5, PSL	Fri, 16 Aug 2013 00:00:00	no	Test	315013	1030222
335838884	340644	Clearwater Ranch	Winkler	Sec 10, B5, PSL	Sun, 18 Aug 2013 00:00:00	no	Test	315023	1030138
335838897	340657	Clearwater Ranch	Winkler	Sec 9, B5, PSL	Wed, 21 Aug 2013 00:00:00	no	Test	314955	1030215
335838936	340696	Clearwater Ranch	Winkler	Sec 9, BLk B5, PSL	Wed, 21 Aug 2013 00:00:00	no	Test	314955	1030215
335838938	340698	Clearwater Ranch	Winkler	Sec 9, BLk B5, PSL	Mon, 19 Aug 2013 00:00:00	no	Test	315001	1030149

http://wiid.twdb.state.tx.us/ims/wwm_drl/viewer.htm?DISCL=1&appno=1

Reference 18

From: Sean Ables
To: Kandice Spera
Subject: RE: Wellhead Protection Area (Kermit PWS No. 2480001)
Date: Tuesday, August 13, 2013 11:40:17 AM

Kandice,

Sorry for taking so long to get back to you. The location you provided is not located in a source water protection area. Let me know if you need anything else.

Thanks,

Sean Ables, P.G.
Geologist
Drinking Water Protection Team
Texas Commission on Environmental Quality
P.O. Box 13087, MC-155
Austin, TX 78711-3087
(512) 239-1758
sean.ables@tceq.texas.gov

"Be the person your dog thinks you are."

From: Kandice Spera
Sent: Thursday, August 08, 2013 10:44 AM
To: Sean Ables
Subject: Wellhead Protection Area (Kermit PWS No. 2480001)

Hi Sean,

I was told by Adrienne Love to contact you to determine if a well is in a wellhead protection area. I'm currently scoring a PWS site in Kermit, TX (Kermit PWS No. 2480001). The coordinates of the indicator well are as follows:

Latitude: 31.854167
Longitude: -103.090000

Do you need any other information?

Thanks,

Kandice Spera **| Project Manager | Superfund Section- Remediation Division | Texas Commission on Environmental Quality | ☎ O: 512-239-2263 | C: 260-273-7789 | ✉ kandice.spera@tceq.texas.gov**

Reference 19

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TSHA Texas Day by Day

December 03, 1951

Baylor University dedicates Armstrong Browning Library

On this day in 1951, the Armstrong Browning Library was dedicated. This facility at Baylor University holds Andrew Joseph Armstrong's personal collection of Browning materials, which he donated to (more...)

Soils of Texas

Like 5

Filed Under: Environment
Agriculture

Click to enlarge.

One of Texas' most important natural resources is its soil. Texas soils are complex because of the wide diversity of climate, vegetation, geology, and landscape. More than 1,300 different kinds of soil are recognized in Texas. Each has a specific set of properties that affect its use.

Major Soil Areas

Texas can be divided into 21 Major Land Resource Areas that have similar or related soils, vegetation, topography, climate, and land uses. Following are brief descriptions of these areas:

Trans-Pecos Soils

The 18.7 million acres of the Trans-Pecos, mostly west of the Pecos River, are diverse plains and valleys intermixed with mountains. Surface drainage is slow to rapid. This arid region is used mainly as rangeland. A small amount of irrigated cropland lies on the more fertile soils along the Rio Grande and the Pecos River. Vineyards are a more recent use of these soils, as is the disposal of large volumes of municipal wastes.

Upland soils are mostly well-drained, light reddish-brown to brown clay loams, clays, and sands (some have a large amount of gypsum or other salts). Many areas have shallow soils and rock outcrops, and sizable areas have deep sands. Bottomland soils are deep, well-drained, dark grayish-brown to reddish-brown silt loams, loams, clay loams, and clays. The lack of soil moisture and wind erosion are the major soil-management problems. Only irrigated crops can be grown on these soils, and most areas lack an adequate source of

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good water.

Upper Pecos, Canadian Valleys, and Plains Soils

The Upper Pecos, Canadian Valleys, and Plains area occupies a little over a half-million acres and is in the northwest part of Texas near the Texas–New Mexico border. It is characterized by broad rolling plains and tablelands broken by drainageways and tributaries of the Canadian River. It includes the Canadian Breaks, which are rough, steep lands below the adjacent High Plains. The average annual precipitation is about 15 inches, but it fluctuates widely from year to year. Surface drainage is slow to rapid.

The soils are well drained and alkaline. The mostly reddish-brown clay loams and sandy loams were formed mostly in material weathered from sandstone and shale. Depths range from shallow to very deep.

The area is used mainly as rangeland and wildlife habitat. Native vegetation is mid- to short-grass prairie species, such as hairy grama, sideoats grama, little bluestem, alkali sacaton, vine-mesquite, and galleta in the plains and tablelands. Juniper and mesquite grow on the relatively higher breaks. Soil management problems include low soil moisture and brush control.

High Plains Soils

The High Plains area comprises a vast high plateau of more than 19.4 million acres in northwestern Texas. It lies in the southern part of the Great Plains province that includes large, similar areas in Oklahoma and New Mexico. The flat, nearly level treeless plain has few streams to cause local relief. However, several major rivers originate in the High Plains or cross the area. The largest is the Canadian River, which has cut a deep valley across the Panhandle section.

Playas, small intermittent lakes scattered through the area, lie up to 20 feet below the surrounding plains. A 1965 survey counted more than 19,000 playas in 44 counties occupying some 340,000 acres. Most runoff from rainfall is collected in the playas, but only 10 to 40 percent of this water percolates back to the Ogallala Aquifer. The aquifer is virtually the exclusive water source in this area.

Upland soils are mostly well-drained, deep, neutral to alkaline clay loams and sandy loams in shades of brown or red. Sandy soils are in the southern part. Many soils have large amounts of lime at various depths and some are shallow over caliche. Soils of bottomlands are minor in extent.

- Agriculture in Texas

The area is used mostly for cropland, but significant areas of rangeland are in the southwestern and extreme northern parts. Millions of cattle populate the many large feedlots in the area. The soils are moderately productive, and the flat surface encourages irrigation and mechanization. Limited soil moisture, constant danger of wind erosion, and irrigation water management are the major soil-management problems, but the region is Texas' leading producer of three important crops: cotton, grain sorghums, and wheat.

Rolling Plains Soils

The Rolling Plains include 21.7 million acres east of the High Plains in northwestern Texas. The area lies west of the North Central Prairies and extends from the edge of the Edwards Plateau in Tom Green County northward into Oklahoma. The landscape is nearly level to strongly rolling, and surface drainage is moderate to rapid. Outcrops of red beds, geologic materials, and associated reddish soils have led some scientists to use the name "Red Plains." Limestone underlies the soils in the southeastern part. The eastern part contains large areas of badlands.

Upland soils are mostly deep, pale-brown through reddish-brown to dark grayish-brown, neutral to alkaline sandy loams, clay loams, and clays; some are deep sands.

Many soils have a large amount of lime in the lower part, and a few others are saline; some are shallow and stony. Bottomland soils are mostly reddish-brown and sandy to clayey; some are saline.

This area is used mostly for rangeland, but cotton, grain sorghums, and wheat are important crops. The major soil-management problems are brush control, wind erosion, low fertility, and lack of soil mosture. Salt spots are a concern in some areas.

North Central Prairie Soils

The North Central Prairie occupies about 7 million acres in North Central Texas. Adjacent to this area on the north is the rather small area (less than 1 million acres) called Rolling Red Prairies, which extends into Oklahoma and is included here because the soils and land use are similar. This area lies between the Western Cross Timbers and the Rolling Plains. It is predominantly grassland intermixed with small wooded areas. The landscape is undulating with slow to rapid surface drainage.

Upland soils are mostly deep, well-drained, brown or reddish-brown, slightly acid loams

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over neutral to alkaline, clayey subsoils. Some soils are shallow or moderately deep to shale. Bottomland soils are mostly well-drained, dark-brown or gray loams and clays.

This area is used mostly as rangeland, but wheat, grain sorghums, and other crops are grown on the better soils. Brush control, wind and water erosion, and limited soil moisture are the major management concerns.

Edwards Plateau Soils

The 22.7 million acres of the Edwards Plateau are in South Central Texas east of the Trans-Pecos and west of the Blackland Prairie. Uplands are nearly level to undulating except near large stream valleys, where the landscape is hilly with deep canyons and steep slopes. There are many cedar brakes in this area. Surface drainage is rapid.

Upland soils are mostly shallow, stony, or gravelly, dark alkaline clays and clay loams underlain by limestone. Lighter-colored soils are on steep sideslopes and deep, less-stony soils are in the valleys. Bottomland soils are mostly deep, dark-gray or brown, alkaline loams and clays.

Raising beef cattle is the main enterprise in this region, but it is also the center of Texas' and the nation's mohair and wool production. The area is a major deer habitat, and hunting leases produce income. Cropland is mostly in the valleys on the deeper soils and is used mainly for growing forage crops and hay. The major soil-management concerns are brush control, large stones, low fertility, excess lime, and limited soil moisture.

Central or Llano Basin Soils

The Central Basin, also known as the Llano Basin, occupies a relatively small area in Central Texas. It includes parts or all of Llano, Mason, Gillespie, and adjoining counties. The total area is about 1.6 million acres of undulating to hilly landscape.

Upland soils are mostly shallow, reddish-brown to brown, mostly gravelly and stony, neutral to slightly acid sandy loams over granite, limestone, gneiss, and schist bedrock. Large boulders are on the soil surface in some areas. Deeper, less stony sandy-loam soils are in the valleys. Bottomland soils are minor areas of deep, dark-gray or brown loams and clays.

Ranching is the main enterprise, with some farms producing peaches, grain sorghum, and wheat. The area provides excellent deer habitat, and hunting leases are a major source of income. Brush control, large stones, and limited soil moisture are soil-management concerns.

Northern Rio Grande Plain Soils

The Northern Rio Grande Plain comprises about 6.3 million acres in South Texas extending from Uvalde to Beeville. The landscape is nearly level to rolling, mostly brush-covered plains with slow to rapid surface drainage.

The major upland soils are deep, reddish-brown or dark grayish-brown, neutral to alkaline loams and clays. Bottomland soils are mostly dark-colored loams.

The area is mostly rangeland with significant areas of cropland. Grain sorghums, cotton, corn, and small grains are the major crops. Crops are irrigated in the western part, especially in the Winter Garden area, where vegetables such as spinach, carrots, and cabbage are grown. Much of the area is good deer and dove habitat; hunting leases are a major source of income. Brush control, soil fertility, and irrigation-water management are the major soil-management concerns.

Western Rio Grande Plain Soils

The Western Rio Grande Plain comprises about 5.3 million acres in an area of southwestern Texas from Del Rio to Rio Grande City. The landscape is nearly level to undulating except near the Rio Grande where it is hilly. Surface drainage is slow to rapid.

The major soils are mostly deep, brown or gray alkaline clays and loams. Some are saline.

Most of the soils are used for rangeland. Irrigated grain sorghums and vegetables are grown along the Rio Grande. Hunting leases are a major source of income. Brush control and limited soil moisture are the major soil-management problems.

Central Rio Grande Plain Soils

The Central Rio Grande Plain comprises about 5.9 million acres in an area of South Texas from Live Oak County to Hidalgo County. It Includes the South Texas Sand Sheet, an area of deep, sandy soils and active sand dunes. The landscape is nearly level to gently undulating. Surface drainage is slow to rapid. Upland soils are mostly deep, light-colored, neutral to alkaline sands and loams. Many are saline or sodic. Bottomland soils are of minor extent.

Most of the area is used for raising beef cattle. A few areas, mostly in the northeast part, are used for growing grain sorghums, cotton, and small grains. Hunting leases are a major source of income. Brush control is the major soil-management problem on rangeland; wind erosion and limited soil moisture are major concerns on cropland.

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Lower Rio Grande Valley Soils

The Lower Rio Grande Valley comprises about 2.1 million acres in extreme southern Texas. The landscape is level to gently sloping with slow surface drainage.

Upland soils are mostly deep, grayish-brown, neutral to alkaline loams; coastal areas are mostly gray, silty clay loam and silty clay; some are saline. Bottomland soils are minor in extent.

Most of the soils are used for growing irrigated vegetables and citrus, along with cotton, grain sorghums, and sugar cane. Some areas are used for growing beef cattle. Irrigation water management and wind erosion are the major soil-management problems on cropland; brush control is the major problem on rangeland.

Western Cross Timbers Soils

The Western Cross Timbers area comprises about 2.6 million acres. It includes the wooded section west of the Grand Prairie and extends from the Red River southward to the north edge of Brown County. The landscape is undulating and is dissected by many drainageways including the Brazos and Red rivers. Surface drainage is rapid.

Upland soils are mostly deep, grayish-brown, slightly acid loams with loamy and clayey subsoils. Bottomland soils along the major rivers are deep, reddish-brown, neutral to alkaline silt loams and clays.

The area is used mostly for grazing beef and dairy cattle on native range and improved pastures. Crops are peanuts, grain sorghums, small grains, peaches, pecans, and vegetables. The major soil-management problem on grazing lands is brush control. Waste management on dairy farms is a more recent concern. Wind and water erosion are the major problems on cropland.

Eastern Cross Timbers Soils

The Eastern Cross Timbers area comprises about 1 million acres in a long narrow strip of wooded land that separates the northern parts of the Blackland Prairie and Grand Prairie and extends from the Red River southward to Hill County. The landscape is gently undulating to rolling and is dissected by many streams, including the Red and Trinity rivers. Sandstone-capped hills are prominent in some areas. Surface runoff is moderate to rapid.

The upland soils are mostly deep, light-colored, slightly acid sandy loams and loamy sands with reddish loamy or clayey subsoils. Bottomland soils are reddish-brown to dark gray, slightly acid to alkaline loams or gray clays.

Grassland consisting of native range and improved pastures is the major land use. Peanuts, grain sorghums, small grains, peaches, pecans, and vegetables are grown in some areas. Brush control, water erosion, and low fertility are the major soil concerns in management.

Grand Prairie Soils

The Grand Prairie comprises about 6.3 million acres in North Central Texas. It extends from the Red River to about the Colorado River. It lies between the Eastern and Western Cross Timbers in the northern part and just west of the Blackland Prairie in the southern part. The landscape is undulating to hilly and is dissected by many streams including the Red, Trinity, and Brazos rivers. Surface drainage is rapid.

Upland soils are mostly dark-gray, alkaline clays; some are shallow over limestone and some are stony. Some areas have light-colored loamy soils over chalky limestone. Bottomland soils along the Red and Brazos rivers are reddish silt loams and clays. Other bottomlands have dark-gray loams and clays.

Land use is a mixture of rangeland, pastureland, and cropland. The area is mainly used for growing beef cattle. Some small grain, grain sorghums, corn, and hay are grown. Brush control and water erosion are the major management concerns.

Blackland Prairie Soils

The Blackland Prairies consist of about 12.6 million acres of east-central Texas extending southwesterly from the Red River to Bexar County. There are smaller areas to the southeast. The landscape is undulating with few scattered wooded areas that are mostly in the bottomlands. Surface drainage is moderate to rapid.

Both upland and bottomland soils are deep, dark-gray to black alkaline clays. Some soils in the western part are shallow to moderately deep over chalk. Some soils on the eastern edge are neutral to slightly acid, grayish clays and loams over mottled clay subsoils (sometimes called

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graylands). Blackland soils are known as "cracking clays" because of the large, deep cracks that form in dry weather. This high shrink-swell property can cause serious damage to foundations, highways, and other structures and is a safety hazard in pits and trenches.

Land use is divided about equally between cropland and grassland. Cotton, grain sorghums, corn, wheat, oats, and hay are grown. Grassland is mostly improved pastures, with native range on the shallower and steeper soils. Water erosion, cotton root rot, soil tilth, and brush control are the major management problems.

Vertical profile of Houston black clay, which occurs in the Blackland Prairie. USDA photo.

Claypan Area Soils

The Claypan Area consists of about 6.1 million acres in east-central Texas just east of the Blackland Prairie. The landscape is a gently undulating to rolling, moderately dissected woodland also known as the Post Oak Belt or Post Oak Savannah. Surface drainage is moderate.

Upland soils commonly have a thin, light-colored, acid sandy loam surface layer over dense, mottled red, yellow, and gray claypan subsoils. Some deep, sandy soils with less clayey subsoils exist. Bottomlands are deep, highly fertile, reddish-brown to dark-gray loamy to clayey soils.

Land use is mainly rangeland. Some areas are in improved pastures. Most cropland is in bottomlands that are protected from flooding. Major crops are cotton, grain sorghums, corn, hay, and forage crops, most of which are irrigated. Brush control on rangeland and irrigation water management on cropland are the major soil-management problems. Water erosion is a serious problem on the highly erosive claypan soils, especially where they are overgrazed.

East Texas Timberland Soils

The East Texas Timberlands area comprises about 16.1 million acres of the forested eastern part of the state. The land is gently undulating to hilly and well dissected by many streams. Surface drainage is moderate to rapid.

This area has many kinds of upland soils but most are deep, light-colored, acid sands and loams over loamy and clayey subsoils. Deep sands are in scattered areas, and red clays are in areas of "redlands." Bottomland soils are mostly brown to dark-gray, acid loams and some clays.

The land is used mostly for growing commercial pine timber and for woodland grazing. Improved pastures are scattered throughout and are used for grazing beef and dairy cattle and for hay production. Some commercial hardwoods are in the bottomlands. Woodland management problems include seedling survival, invasion of hardwoods in pine stands, effects of logging on water quality, and control of the southern pine beetle. Lime and fertilizers are necessary for productive cropland and pastures.

Coast Prairie Soils

The Coast Prairie includes about 8.7 million acres near the Gulf Coast. It ranges from 30 miles to 80 miles in width and parallels the coast from the Sabine River in Orange County in Southeast Texas to Baffin Bay in Kleberg County in South Texas. The landscape is level to gently undulating with slow surface drainage.

Upland soils are mostly deep, dark-gray, neutral to slightly acid clay loams and clays. Lighter-colored and more-sandy soils are in a strip on the northwestern edge. Some soils in the southern part are alkaline; some are saline and sodic. Bottomland soils are mostly deep, dark-colored clays and loams along small streams but are greatly varied along the rivers.

Land use is mainly grazing lands and cropland. Some hardwood timber is in the bottomlands. Many areas are also managed for wetland wildlife habitat. The nearly level topography and productive soils encourage farming. Rice, grain sorghums, cotton, corn, and hay are the main crops. Brush management on grasslands and removal of excess water on cropland are the major management concerns.

Coast Saline Prairies Soils

The Coast Saline Prairies area includes about 3.2 million acres along a narrow strip of wet lowlands adjacent to the coast; it includes the barrier islands that extend from Mexico to Louisiana. The surface is at or only a few feet above sea level with many areas of salt-water marsh. Surface drainage is very slow.

The soils are mostly deep, dark-colored clays and loams; many are saline and sodic. Light-colored sandy soils are on the barrier islands. The water table is at or near the surface of

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most soils.

Cattle grazing is the chief economic use of the various salt-tolerant cordgrasses and sedges. Many areas are managed for wetland wildlife. Recreation is popular on the barrier islands. Providing fresh water and access to grazing areas are the major management concerns.

Gulf Coast Marsh Soils

This 150,000-acre area lies in the extreme southeastern corner of Texas. The area can be subdivided into four parts: freshwater, intermediate, brackish, and saline (saltwater) marsh. The degree of salinity of this system grades landward from saltwater marshes along the coast to freshwater marshes inland. Surface drainage is very slow.

This area contains many lakes, bayous, tidal channels, and man-made canals. About one-half of the marsh is fresh; one-half is salty. Most of it is susceptible to flooding either by fresh water drained from lands adjacent to the marsh or by saltwater from the Gulf of Mexico. Most of the soils are poorly drained, continuously saturated, soft, and can carry little weight. In general, the organic soils have a thick layer of dark gray, relatively undecomposed organic material over a gray, clayey subsoil. The mineral soils have a surface of dark gray, highly decomposed organic material over a gray, clayey subsoil.

Most of the almost treeless and uninhabited area is in marsh vegetation, such as grasses, sedges, and rushes. It is used mainly for wildlife habitat. Part of the fertile and productive estuarine complex supports marine life of the Gulf of Mexico. It also provides wintering ground for waterfowl and habitat for many fur-bearing animals and alligators. A significant acreage is firm enough to support livestock and is used for winter grazing of cattle. The major management problems are providing fresh water and access to grazing areas.

Flatwoods Soils

The Flatwoods area includes about 2.5 million acres of woodland in humid Southeast Texas just north of the Coast Prairie and extending into Louisiana. The landscape is level to gently undulating. Surface drainage is slow.

Upland soils are mostly deep, light-colored, acid loams with gray, loamy, or clayey subsoils. Bottomland soils are deep, dark-colored, acid clays and loams. The water table is near the surface at least part of the year.

The land is mainly used for forest, although cattle are grazed in some areas. Woodland management problems include seedling survival, invasion of hardwoods in pine stands, effects of logging on water quality, and control of the southern pine beetle.

Source: Natural Resources Conservation Service, U.S. Department of Agriculture.

Soil maps and information about soils and their uses are available for nearly all of the state's 254 counties. Texas' official soil information site is the the Web Soil Survey: websoilsurvey.nrcs.usda.gov.

For more information, contact the Natural Resources Conservation Service at 101 S. Main, Temple 76501-7602; (254) 742-9800; or visit www.tx.nrcs.usda.gov, click on "Information About: Soils."

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TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years

Prepared by
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U.S. Department of Agriculture

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PREFACE

This publication is intended as a convenient summary of empirical relationships, working guides, and maps, useful in practical problems requiring rainfall frequency data. It is an outgrowth of several previous Weather Bureau publications on this subject prepared under the direction of the author and contains an expansion and generalization of the ideas and results in earlier papers. This work has been supported and financed by the Soil Conservation Service, Department of Agriculture, to provide material for use in developing planning and design criteria for the Watershed Protection and Flood Prevention program (P.L. 566, 83d Congress and as amended).

The paper is divided into two parts. The first part presents the rainfall analyses. Included are measures of the quality of the various relationships, comparisons with previous works of a similar nature, numerical examples, discussions of the limitations of the results, transformation from point to areal frequency, and seasonal variation. The second part presents 49 rainfall frequency maps based on a comprehensive and integrated collection of up-to-date statistics, several related maps, and seasonal variation diagrams. The rainfall frequency (isopluvial) maps are for selected durations from 30 minutes to 24 hours and return periods from 1 to 100 years.

This study was prepared in the Cooperative Studies Section (Joseph L. H. Paulhus, Chief) of Hydrologic Services Division (William E. Hiatt, Chief). Coordination with the Soil Conservation Service, Department of Agriculture, was maintained through Harold O. Ogrosky, Chief, Hydrology Branch, Engineering Division. Assistance in the study was received from several people. In particular, the author wishes to acknowledge the help of William E. Miller who programmed the frequency and duration functions and supervised the processing of all the data; Normalee S. Foat who supervised the collection of the basic data; Howard Thompson who prepared the maps for analysis; Walter T. Wilson, a former colleague, who was associated with the development of a large portion of the material presented here; Max A. Kohler, A. L. Shands, and Leonard L. Weiss, of the Weather Bureau, and V. Mockus and R. G. Andrews, of the Soil Conservation Service, who reviewed the manuscript and made many helpful suggestions. Caroll W. Gardner performed the drafting.

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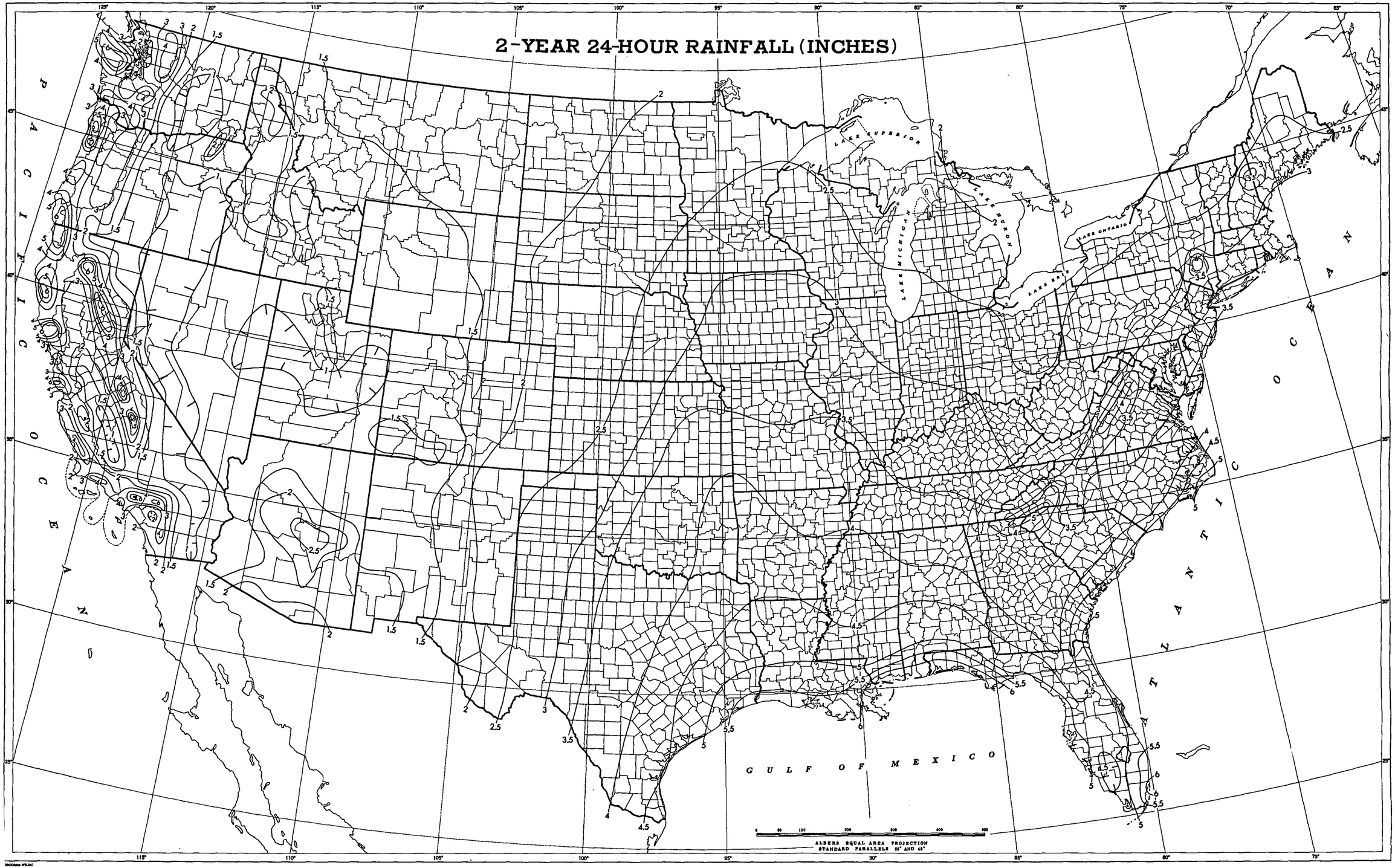
2-YEAR 24-HOUR RAINFALL (INCHES)
PACIFIC OCEAN
ATLANTIC OCEAN
GULF OF MEXICO
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ONTARIO
LAKE ERIE
ALBERS EQUAL AREA PROJECTION
STANDARD PARALLELS 29° AND 45°

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Taxon	Common Name	Scientific Name	Federal Status	State Status	County Range
Birds	Baird's Sparrow	Ammodramus bairdii			View Map
Birds	Sprague's Pipit	Anthus spragueii	C		View Map
Birds	Western Burrowing Owl	Athene cunicularia hypugaea			View Map
Birds	Ferruginous Hawk	Buteo regalis			View Map
Birds	Snowy Plover	Charadrius alexandrinus			View Map
Birds	Western Snowy Plover	Charadrius alexandrinus nivosus			View Map
Birds	Mountain Plover	Charadrius montanus			View Map
Birds	Prairie Falcon	Falco mexicanus			View Map
Birds	Peregrine Falcon	Falco peregrinus	DL	T	View Map
Birds	American Peregrine Falcon	Falco peregrinus anatum	DL	T	View Map
Birds	Arctic Peregrine Falcon	Falco peregrinus tundrius	DL		View Map
Birds	Bald Eagle	Haliaeetus leucocephalus	DL	T	View Map
Mammals	Gray wolf	Canis lupus	LE	E	View Map
Mammals	Pale Townsend's big-eared bat	Corynorhinus townsendii pallescens			View Map
Mammals	Black-tailed prairie dog	Cynomys ludovicianus			View Map
Mammals	Jones' pocket gopher	Geomys knoxjonesi			View Map
Mammals	Black-footed ferret	Mustela nigripes	LE		View Map
Plants	Dune umbrella-sedge	Cyperus onerosus			View Map
Plants	Havard's machaeranthera	Xanthisma viscidum			View Map
Reptiles	Spot-tailed earless lizard	Holbrookia lacerata			View Map
Reptiles	Texas horned lizard	Phrynosoma cornutum		T	View Map
Reptiles	Dune sagebrush lizard	Sceloporus arenicolus			View Map

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WETLANDS AND DEEPWATER HABITATS CLASSIFICATION

System	M - Marine							
Subsystem	1 - Subtidal				2 - Intertidal			
Class	RB – Rock Bottom	UB – Unconsolidated Bottom	AB – Aquatic Bed	RF – Reef	AB – Aquatic Bed	RF – Reef	RS – Rocky Shore	US – Unconsolidated Shore
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud	1 Algal 3 Rooted Vascular	1 Coral 3 Worm	1 Algal 3 Rooted Vascular	1 Coral 3 Worm	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

System	E - Estuarine											
Subsystem	1 - Subtidal				2 - Intertidal							
Class	RB – Rock Bottom	UB – Unconsolidated Bottom	AB – Aquatic Bed	RF – Reef	AB – Aquatic Bed	RF – Reef	SB – Streambed	RS – Rocky Shore	US – Unconsolidated Shore	EM – Emergent	SS – Scrub-Shrub	FO – Forested
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 4 Floating Vascular	2 Mollusk 3 Worm	1 Algal 3 Rooted Vascular 4 Floating Vascular	2 Mollusk 3 Worm	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Persistent 2 Non-persistent 5 *Phragmites australis*	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen

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System	R - Riverine						
Subsystem	1 - Tidal	2 – Lower Perennial	3 – Upper Perennial	4* - Intermittent	5* – Unknown Perennial		
Class	RB** – Rock Bottom	UB – Unconsolidated Bottom	SB** – Streambed	AB – Aquatic Bed	RS – Rocky Shore	US – Unconsolidated Shore	EM – Emergent
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent

* **Intermittent** is limited to the **Streambed** Class;
Unknown Perennial is limited to **Unconsolidated Bottom** Class code **R5UB** only
** **Rock Bottom** is not permitted for the **Lower Perennial** Subsystem;
Streambed is limited to **Tidal** and **Intermittent** Subsystems

Classification of Wetlands and Deepwater Habitats of the United States, Cowardin *et al*. 1979

WETLANDS AND DEEPWATER HABITATS CLASSIFICATION

System	L - Lacustrine										
Subsystem	1 - Limnetic			2 - Littoral							
Class	RB – Rock Bottom	UB – Unconsolidated Bottom	AB – Aquatic Bed	RB – Rock Bottom	UB – Unconsolidated Bottom	AB – Aquatic Bed	RS – Rocky Shore	US – Unconsolidated Shore	EM – Emergent		
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent		

System	P - Palustrine							
Class	RB – Rock Bottom	UB – Unconsolidated Bottom	AB – Aquatic Bed	US – Unconsolidated Shore	ML – Moss-Lichen	EM – Emergent	SS – Scrub-Shrub	FO – Forested
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent 5 *Phragmites australis*	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen

22.0002

MODIFIERS

In order to more adequately describe the wetland and deepwater habitats, one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

Water Regime			Special Modifiers	Water Chemistry			Soil
Nontidal	**Saltwater Tidal**	**Freshwater Tidal**		**Coastal Halinity**	**Inland Salinity**	**pH Modifiers for all Fresh Water**	
A Temporarily Flooded	L Subtidal	S Temporarily Flooded-Tidal	b Beaver	1 Hyperhaline	7 Hypersaline	a Acid	g Organic
B Saturated	M Irregularly Exposed	R Seasonally Flooded-Tidal	d Partly Drained/Ditched	2 Euhaline	8 Eusaline	t Circumneutral	n Mineral
C Seasonally Flooded	N Regularly Flooded	T Semipermanently Flooded-Tidal	f Farmed	3 Mixohaline (Brackish)	9 Mixosaline	i Alkaline	
E Seasonally Flooded/ Saturated	P Irregularly Flooded	V Permanently Flooded-Tidal	h Diked/Impounded	4 Polyhaline	0 Fresh		
F Semipermanently Flooded			r Artificial	5 Mesohaline			
G Intermittently Exposed			s Spoil	6 Oligohaline			
H Permanently Flooded			x Excavated	0 Fresh			
J Intermittently Flooded							
K Artificially Flooded							

Reference 23

Consumer Factsheet on: TETRACHLOROETHYLENE

List of Contaminants

As part of the Drinking Water and Health pages, this fact sheet is part of a larger publication:
National Primary Drinking Water Regulations

This is a factsheet about a chemical that may be found in some public or private drinking water supplies. It may cause health problems if found in amounts greater than the health standard set by the United States Environmental Protection Agency (EPA).

What is Tetrachloroethylene and how is it used?

Tetrachloroethylene (PCE) is a colorless organic liquid with a mild, chloroform-like odor. Its greatest use is in the textile industry, and as a component of aerosol dry-cleaning products.

The list of trade names given below may help you find out whether you are using this chemical at home or work.

Trade Names and Synonyms:

Ethylene tetrachloride
Perchloroethylene
PCE
Ankilostin
Didakene
Fedal-un
Nema
Perclene
Persec
Tetlen
Tetracap
Tetraleno
Tetropil
Antisal 1
Dow-per
Perawin
Perchlor
Percosolv
Perk
Perklone
Tetraguer
Tetralex
Tetravec

Why is Tetrachloroethylene being Regulated?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine safe levels of chemicals in drinking water which do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called Maximum Contaminant Level Goals.

The MCLG for PCE has been set at zero because EPA believes this level of protection would not cause any of the potential health problems described below.

Based on this MCLG, EPA has set an enforceable standard called a Maximum Contaminant Level (MCL). MCLs are set as close to the MCLGs as possible, considering the ability of public water systems to detect and remove contaminants using suitable treatment technologies.

The MCL has been set at 5 parts per billion (ppb) because EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to remove this contaminant should it occur in drinking water.

These drinking water standards and the regulations for ensuring these standards are met, are called National Primary Drinking Water Regulations. All public water supplies must abide by these regulations.

What are the Health Effects?

Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver and may have an increased risk of getting cancer.

How much Tetrachloroethylene is produced and released to the environment?

Production of tetrachloroethylene was 405 million lbs in 1986. Major releases of tetrachloroethylene to air and water are from dry cleaning and industrial metal cleaning or finishing. Water pollution can occur from tetrachloroethylene leaching from vinyl liners in some types of pipelines used for water distribution, and during chlorination water treatment.

From 1987 to 1993, according to EPA's Toxic Chemical Release Inventory, tetrachloroethylene releases to land and water totalled over 1 million lbs. These releases were primarily from alkali and chlorine industries which use it to make other chemicals. The largest releases occurred in Louisiana and South Carolina.

What happens to Tetrachloroethylene when it is released to the environment?

PCE released to soil will readily evaporate or may leach slowly to the groundwater. Its break down by soil microbes is slow. PCE released to water will primarily evaporate and has little potential for accumulating in aquatic life.

How will Tetrachloroethylene be Detected in and Removed from My Drinking Water?

The regulation for tetrachloroethylene became effective in 1992. Between 1993 and 1995, EPA required your water supplier to collect water samples every 3 months for one year and analyze them to find out if PCE is present above 0.5 ppb. If it is present above this level, the system must continue to monitor this contaminant until the system has taken immediate steps to remediate the problem or the State has determined that the contaminant will remain reliably and consistently below the MCL.

If contaminant levels are found to be consistently above the MCL, your water supplier must take steps to reduce the amount of PCE so that it is consistently below that level. The following treatment methods have been approved by EPA for removing PCE: Granular activated carbon in combination with Packed Tower Aeration.

How will I know if Tetrachloroethylene is in my drinking water?

If the levels of PCE exceed the MCL, 5 ppb, the system must notify the public via newspapers, radio, TV and other means. Additional actions, such as providing alternative drinking water supplies, may be required to prevent serious risks to public health.

Drinking Water Standards:

Mclg: zero

Mcl: 5 ppb

Tetrachloroethylene Releases to Water and Land, 1987 to 1993 (in pounds):

	Water	Land
TOTALS (in pounds)	**297,602**	**750,104**
Top Ten States*		
LA	23,639	610,518
SC	104,728	0
NH	62,150	0
NC	42,192	13,102
IL	0	40,500
TX	36,144	720
OH	0	32,170
IN	1,300	27,000
CO	0	11,000
IA	5,112	0
Major Industries*		
Alkalis, chlorine	63,472	611,242
Leather tanning,finishing	62,150	0
Cotton fabric finishing	51,577	0
Misc textile finishing	48,082	2,000
Knit outwear mills	45,808	0
Misc. apparel, access.	0	40,500
Transportation Equip.	3,750	27,000
Ammunition	0	20,575
Misc Chem. preparations	0	11,102
Petroleum refining	0	11,000
Ordnance, accessories	0	10,100

* Water/Land totals only include facilities with releases greater than a certain amount - usually 1000 to 10,000 lbs.

Learn more about your drinking water!

EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect and upgrade the supply of safe drinking water. Your water bill or telephone books government listings are a good starting point.

Your local water supplier can give you a list of the chemicals they test for in your water, as well as how your water is treated.

Your state Department of Health/Environment is also a valuable source of information.

For help in locating these agencies or for information on drinking water in general, call: EPAs Safe Drinking Water Hotline: (800) 426-4791.

For additional information on the uses and releases of chemicals in your state, contact the: Community Right-to-Know Hotline: (800) 424-9346.

Reference 24

Water Home

Drinking Water
- Analytical Methods and Laboratories
- Consumer Information
- Drinking Water Standards
- Emergency Preparedness
- Local Drinking Water Information
- Private Wells
- Virtual Tour of Water Treatment Plant
- Water Contaminants
- Water Security
- Water on Tap: Consumer's Guide

Education & Training

Grants & Funding

Laws & Regulations

Our Waters

Pollution Prevention & Control

Resources & Performance

Science & Technology

Water Infrastructure

What You Can Do

Basic Information about Trichloroethylene in Drinking Water

Drinking Water Contaminants Home | Basic Information about Drinking Water Contaminants

EPA regulates trichloroethylene in drinking water to protect public health. Trichloroethylene may cause health problems if present in public or private water supplies in amounts greater than the drinking water standard set by EPA.

- What is trichloroethylene?
- Uses for trichloroethylene.
- What are trichloroethylene's health effects?
- What are EPA's drinking water regulations for trichloroethylene?
- How does trichloroethylene get into my drinking water?
- How will I know if trichloroethylene is in my drinking water?
- How will trichloroethylene be removed from my drinking water?
- How do I learn more about my drinking water?

Trichloroethylene at a Glance

Maximum Contaminant Level (MCL) = 0.005 milligrams per Liter (mg/L) or 5 parts per billion (ppb)

Maximum Contaminant Level Goal (MCLG) = zero

Health Effects
Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

Drinking Water Health Advisories provide more information on health effects

Chemical Abstract Service Registry Number
79-01-6

Sources of Contamination
Discharge from metal degreasing sites and other factories

List of all Regulated Contaminants (PDF) (6 pp, 396K, About PDF)

What is trichloroethylene?
Trichloroethylene, a volatile organic chemical, is a colorless or blue liquid with a chloroform-like odor.

Uses for trichloroethylene.
Trichloroethylene is primarily used to remove grease from fabricated metal parts and in the production of some textiles.

If you are concerned about trichloroethylene in a private well, please visit:

- EPA's private drinking water wells Web site
- Water Systems Council Web site EXIT Disclaimer

What are trichloroethylene's health effects?
Some people who drink water containing trichloroethylene well in excess of the maximum contaminant level (MCL) for many years could experience problems with their liver and may have an increased risk of getting cancer.

This health effects language is not intended to catalog all possible health effects for trichloroethylene. Rather, it is intended to inform consumers of some of the possible health effects associated with trichloroethylene in drinking water when the rule was finalized.

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What are EPA's drinking water regulations for trichloroethylene?
In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur. These non-enforceable health goals, based solely on possible health risks and exposure over a lifetime with an adequate margin of safety, are called maximum contaminant level goals (MCLG). Contaminants are any physical, chemical, biological or radiological substances or matter in water.

The MCLG for trichloroethylene is zero. EPA has set this level of protection based on the best available science to prevent potential health problems. EPA has set an enforceable regulation for trichloroethylene, called a maximum contaminant level (MCL), at 0.005 mg/L or 5 ppb. MCLs are set as close to the health goals as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment

technologies.

The Phase I Rule, the regulation for trichloroethylene, became effective in 1989. The Safe Drinking Water Act requires EPA to periodically review the national primary drinking water regulation for each contaminant and revise the regulation, if appropriate. EPA reviewed trichloroethylene as part of the second Six Year Review and determined that it is appropriate to revise the regulation based on changes in analytical feasibility.

- More information on the Six Year Review of Drinking Water Standards.

States may set more stringent drinking water MCLGs and MCLs for trichloroethylene than EPA.

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How does trichloroethylene get into my drinking water?
The major source of trichloroethylene in drinking water is discharge from metal degreasing sites and other factories. Wastewater from metal finishing, paint and ink formulation, electrical components, and rubber processing industries may also contain trichloroethylene.

A federal law called the Emergency Planning and Community Right to Know Act (EPCRA) requires facilities in certain industries, which manufacture, process, or use significant amounts of toxic chemicals, to report annually on their releases of these chemicals. For more information on the uses and releases of chemicals in your state, contact the Community Right-to-Know Hotline: (800) 424-9346.

- EPA's Toxics Release Inventory (TRI) Web site provides information about the types and amounts of toxic chemicals that are released each year to the air, water, and land.

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How will I know if trichloroethylene is in my drinking water?
When routine monitoring indicates that trichloroethylene levels are above the MCL, your water supplier must take steps to reduce the amount of trichloroethylene so that it is below that level. Water suppliers must notify their customers as soon as practical, but no later than 30 days after the system learns of the violation. Additional actions, such as providing alternative drinking water supplies, may be required to prevent serious risks to public health.

- See EPA's public notification requirements for public water systems.

If your water comes from a household well, check with your health department or local water systems that use ground water for information on contaminants of concern in your area.

- For more information on wells, go to EPA's Web site on private wells.

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How will trichloroethylene be removed from my drinking water?
The following treatment method(s) have proven to be effective for removing trichloroethylene to below 0.005 mg/L or 5 ppb: granular activated carbon in combination with packed tower aeration.

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How do I learn more about my drinking water?
EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect the supply of safe drinking water and upgrade the community water system. Your water bill or telephone book's government listings are a good starting point for local information.

Contact your water utility. EPA requires all community water systems to prepare and deliver an annual consumer confidence report (CCR) (sometimes called a water quality report) for their customers by July 1 of each year. If your water provider is not a community water system, or if you have a private water supply, request a copy from a nearby community water system.

- The CCR summarizes information regarding sources used (i.e., rivers, lakes, reservoirs, or aquifers), detected contaminants, compliance and educational information.
- Some water suppliers have posted their annual reports on EPA's Web site.

Other EPA Web sites

- Find an answer or ask a question about drinking water contaminants on EPA's Question and Answer Web site or call EPA's Safe Drinking Water Hotline at (800) 426-4791
- EPA's Integrated Risk Information System
- EPA's Air Toxics Technology Transfer Network, Trichloroethylene

Other Federal Departments and Agencies

- Agency for Toxic Substances and Diseases Registry, ToxFAQs, Trichloroethylene

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Reference 25

Water System Detail Information

Water System No.:	TX2480001	Federal Type:	C
Water System Name:	CITY OF KERMIT	Federal Source:	GW
Principal County Served:	WINKLER	System Status:	A
Principal City Served:		Activity Date:	01-01-1913

Compliance Schedules

Sequence Num. St. ID	Regulating Agency/ Compliance Officer	Type	Effect. Date/ Closed Date	Status/Date
80 CCR2012	TX COMMISSION ON ENVIRONMENTAL QUALITY GONZALES, MIA	CCR-CONSUMER CONFIDENCE REPORT	01-01-2013 12-31-2013	F 05-02-2013
78 CCR2011	TX COMMISSION ON ENVIRONMENTAL QUALITY LINDNER, MIKE	CCR-CONSUMER CONFIDENCE REPORT	01-01-2012 12-31-2012	F 04-03-2012
77 CCR2010	TX COMMISSION ON ENVIRONMENTAL QUALITY CERDA, DEBRA	CCR-CONSUMER CONFIDENCE REPORT	01-01-2011 12-31-2011	F 05-02-2011
75 CCR2007	TX COMMISSION ON ENVIRONMENTAL QUALITY	CCR-CONSUMER CONFIDENCE REPORT	01-01-2008 12-31-2008	F 01-01-2008
84	TX COMMISSION ON ENVIRONMENTAL QUALITY	LCNT-LEAD CONSUMER NOTIFICATION	06-01-2013 No Closed Date	F 11-05-2013

Texas Commission on Environmental Quality	Office of Water	Public Drinking Water Section
County Map of TX	Water System Search	Office of Compliance and Enforcement

Water System Detail			
Water System Facilities Source Water Assessment Results	Violations Enforcement Actions	TCR Sample Results	TTHM HAA5 Summaries
Sample Points	Assistance Actions	Recent Positive TCR Results	PBCU Summaries
Sample Schedules / FANLs / Plans	Compliance Schedules	Other Chemical Results	Chlorine Summaries
Site Visits Milestones	TOC/Alkalinity Results	Chemical Results: Sort by: Name Code	Turbidity Summaries
Operators All POC	LRAA (TTHM/HAA5)	Recent Non-TCR Sample Results	TCR Sample Summaries
Glossary			

Water System Detail Information

Water System No.:	TX2480001	Federal Type:	C
Water System Name:	CITY OF KERMIT	Federal Source:	GW
Principal County Served:	WINKLER	System Status:	A
Principal City Served:		Activity Date:	01-01-1913

Group Violations

Fed Fiscal Year	Determ. Date	Violation Type	Violation Name	Analyte Group	Analyte Group Name

Individual Violations

Violation No.	Compliance Period	Violation Type Code	Violation Name	Analyte Code	Analyte Name	Has the Violation been Addressed? (On the Path to Compliance)	Has the Violation been Resolved? (Returned to Compliance)

Total Number of Records Fetched = 0

Reference 26

Texas Commission on Environmental Quality	Office of Water	Public Drinking Water Section
County Map of TX	Water System Search	Office of Compliance and Enforcement

Water System Detail			
Water System Facilities Source Water Assessment Results	Violations Enforcement Actions	TCR Sample Results	TTHM HAA5 Summaries
Sample Points	Assistance Actions	Recent Positive TCR Results	PBCU Summaries
Sample Schedules / FANLs / Plans	Compliance Schedules	Other Chemical Results	Chlorine Summaries
Site Visits Milestones	TOC/Alkalinity Results	Chemical Results: Sort by: Name Code	Turbidity Summaries
Operators All POC	LRAA (TTHM/HAA5)	Recent Non-TCR Sample Results	TCR Sample Summaries
Glossary			

Water System Detail Information			
Water System No.:	TX2480001	Federal Type:	C
Water System Name:	CITY OF KERMIT	Federal Source:	GW
Principal County Served:	WINKLER	System Status:	A
Principal City Served:		Activity Date:	01-01-1913

EP 001

Result List by Analyte

Analyte Code	Analyte Name	Facility	Sample Point	Sample Collection Date	TCEQ Sample ID	Laboratory Sample ID	Concentration	Method	Detection Limit	Current Maximum Contaminant Level Allowed (MCL)
2984	TRICHLOROETHYLENE	EP001	TRT-TAP	09/19/2012	1227325	AC01561	1.2 UG/L	524.2		5 UG/L
2984	TRICHLOROETHYLENE	EP002	TRT-TAP	09/19/2012	1227418	AC01559	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2984	TRICHLOROETHYLENE	EP001	TRT-TAP	09/26/2011	1165125	AB71190	0.5 UG/L	524.2		5 UG/L
2984	TRICHLOROETHYLENE	EP002	TRT-TAP	09/26/2011	1165179	AB71188	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2984	TRICHLOROETHYLENE	EP001	TRT-TAP	09/27/2010	1039553	AB39655	0.8 UG/L	524.2		5 UG/L
2984	TRICHLOROETHYLENE	EP002	TRT-TAP	09/27/2010	1039557	AB39657	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2984	TRICHLOROETHYLENE	EP001	TRT-TAP	09/21/2009	0941497	AB11621	0.6 UG/L	524.2		5 UG/L
2984	TRICHLOROETHYLENE	EP002	TRT-TAP	09/21/2009	0941499	AB11623	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2984	TRICHLOROETHYLENE	EP001	TRT-TAP	06/24/2008	0844299	0806849005	1.12 UG/L	524.2		5 UG/L
2984	TRICHLOROETHYLENE	EP002	TRT-TAP	06/24/2008	0844303	0806849007	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2984	TRICHLOROETHYLENE	EP001	TRT-TAP	05/01/2007	0741416	0705141003	1.1 UG/L	524.2		5 UG/L
2984	TRICHLOROETHYLENE	EP002	TRT-TAP	05/01/2007	0741418	0705141005	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2984	TRICHLOROETHYLENE	EP001	TRT-TAP	07/11/2006	0617469	0607209004	1.18 UG/L	524.2		5 UG/L
2984	TRICHLOROETHYLENE	EP002	TRT-TAP	07/11/2006	0617470	0607209006	Less than Detection	524.2	0.5 UG/L	5 UG/L

							Limit			
2984	TRICHLOROETHYLENE	EP001	TRT-TAP	08/12/2004	0342336	EP419277	1.1 UG/L	524.2		5 UG/L
2984	TRICHLOROETHYLENE	EP002	TRT-TAP	08/12/2004	0342340	EP419278	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L

Total Number of Records Fetched = 16

Notes:
Analyte results are presented sorted by date then TCEQ Sample ID Number.
Single Sample MCL Violations are noted in **Bold Red** in the Concentration column.

Reference 27

Texas Commission on Environmental Quality	Office of Water	Public Drinking Water Section
County Map of TX	Water System Search	Office of Compliance and Enforcement

Water System Detail			
Water System Facilities Source Water Assessment Results	Violations Enforcement Actions	TCR Sample Results	TTHM HAA5 Summaries
Sample Points	Assistance Actions	Recent Positive TCR Results	PBCU Summaries
Sample Schedules / FANLs / Plans	Compliance Schedules	Other Chemical Results	Chlorine Summaries
Site Visits Milestones	TOC/Alkalinity Results	Chemical Results: Sort by: Name Code	Turbidity Summaries
Operators All POC	LRAA (TTHM/HAA5)	Recent Non-TCR Sample Results	TCR Sample Summaries
Glossary			

Water System Detail Information			
Water System No.:	TX2480001	Federal Type:	C
Water System Name:	CITY OF KERMIT	Federal Source:	GW
Principal County Served:	WINKLER	System Status:	A
Principal City Served:		Activity Date:	01-01-1913

EP 002

Result List by Analyte

Analyte Code	Analyte Name	Facility	Sample Point	Sample Collection Date	TCEQ Sample ID	Laboratory Sample ID	Concentration	Method	Detection Limit	Current Maximum Contaminant Level Allowed (MCL)
2987	TETRACHLOROETHYLENE	EP001	TRT-TAP	09/19/2012	1227325	AC01561	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP002	TRT-TAP	09/19/2012	1227418	AC01559	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP001	TRT-TAP	09/26/2011	1165125	AB71190	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP002	TRT-TAP	09/26/2011	1165179	AB71188	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP001	TRT-TAP	09/27/2010	1039553	AB39655	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP002	TRT-TAP	09/27/2010	1039557	AB39657	2.5 UG/L	524.2		5 UG/L
2987	TETRACHLOROETHYLENE	EP001	TRT-TAP	09/21/2009	0941497	AB11621	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP002	TRT-TAP	09/21/2009	0941499	AB11623	2.9 UG/L	524.2		5 UG/L
2987	TETRACHLOROETHYLENE	EP001	TRT-TAP	06/24/2008	0844299	0806849005	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP002	TRT-TAP	06/24/2008	0844303	0806849007	1.79 UG/L	524.2		5 UG/L
2987	TETRACHLOROETHYLENE	EP001	TRT-TAP	05/01/2007	0741416	0705141003	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP002	TRT-TAP	05/01/2007	0741418	0705141005	0.95 UG/L	524.2		5 UG/L
2987	TETRACHLOROETHYLENE	EP001	TRT-TAP	07/11/2006	0617469	0607209004	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP002	TRT-TAP	07/11/2006	0617470	0607209006	1.48 UG/L	524.2		5 UG/L

2987	TETRACHLOROETHYLENE	EP001	TRT-TAP	08/12/2004	0342336	EP419277	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L
2987	TETRACHLOROETHYLENE	EP002	TRT-TAP	08/12/2004	0342340	EP419278	Less than Detection Limit	524.2	0.5 UG/L	5 UG/L

Total Number of Records Fetched = 16

Notes:
Analyte results are presented sorted by date then TCEQ Sample ID Number.
Single Sample MCL Violations are noted in **Bold Red** in the Concentration column.

Reference 28

Detailed PWS Source for SANTA ROSA 5 @ BRYAN & SOUTH AVE. A (G2480001L)

Geo. Location | Aquifer Usage | Srce Water Char | Violations | Comments | Plants
Samples | Schedules

General Information

Owning PWS Name (ID): **CITY OF KERMIT (2480001)**

Plant Name (Number): **WALTON PS (14394)**

Properties

Source Number: **G2480001L**

Source Type: **GROUND WATER**

Body of Water Type:

Hydrologic Unit:

Surface Water Intake Type:

Source Monitoring: **N**

Comments:

Activity

Start Date:

End Date:

Activity Date:

Activity Status: **ACTIVE**

Activity Reason:

Drill Date: **06/19/1905**

Well Depth: **500**

Rated GPM: **350**

Tested GPM: **100**

Well Data: **DOCKUM FORMATION**

Source was successfully retrieved.

Show Map

For questions or comments regarding information on this page, contact the TCEQ iWUD Web Manager

Version V2.7.0

Detailed PWS Source for SANTA ROSA 6 @ HOUSTON & CEDAR (G2480001M)

General Information

Owning PWS Name (ID): **CITY OF KERMIT (2480001)**

Plant Name (Number): **WALTON PS (14394)**

Properties

Source Number: **G2480001M**

Source Type: **GROUND WATER**

Body of Water Type:

Hydrologic Unit:

Surface Water Intake Type:

Source Monitoring: **N**

Comments:

Activity

Start Date:

End Date:

Activity Date:

Activity Status: **ACTIVE**

Activity Reason:

Drill Date: **06/21/1905**

Well Depth: **500**

Rated GPM: **320**

Tested GPM: **85**

Well Data:

Source was successfully retrieved.

Show Map

For questions or comments regarding information on this page, contact the TCEQ iWUD Web Manager

Version V2.7.0

Detailed PWS Source for SANTA ROSA 1 @ OAKLAWN & POPLAR (G2480001F)

General Information

Owning PWS Name (ID): **CITY OF KERMIT (2480001)**

Plant Name (Number): **WALTON PS (14394)**

Properties

Source Number: **G2480001F**

Source Type: **GROUND WATER**

Body of Water Type:

Hydrologic Unit:

Surface Water Intake Type:

Source Monitoring: **N**

Comments:

Activity

Start Date: **03/18/2010**

End Date: **12/31/3000**

Activity Date: **03/18/2010**

Activity Status: **INACTIVE**

Activity Reason:

Drill Date: **06/20/1905**

Well Depth: **559**

Rated GPM: **250**

Tested GPM: **290**

Well Data:

Source was successfully retrieved.

Show Map

For questions or comments regarding information on this page, contact the TCEQ iWUD Web Manager

Version V2.7.0

Detailed PWS Source for SANTA ROSA 4 @ CAMPBELL & AVE. B (G2480001I)

General Information

Owning PWS Name (ID): **CITY OF KERMIT (2480001)**

Plant Name (Number): **WALTON PS (14394)**

Properties

Source Number: **G2480001I**

Source Type: **GROUND WATER**

Body of Water Type:

Hydrologic Unit:

Surface Water Intake Type:

Source Monitoring: **N**

Comments:

Activity

Start Date:

End Date:

Activity Date:

Activity Status: **ACTIVE**

Activity Reason:

Drill Date: **05/14/1905**

Well Depth: **497**

Rated GPM: **350**

Tested GPM: **325**

Well Data: **DOCKUM FORMATION**

Source was successfully retrieved.

Show Map

For questions or comments regarding information on this page, contact the TCEQ iWUD Web Manager

Version V2.7.0

Detailed PWS Source for WALTON 1 - CAMPBELL / B (INSIDE PUMP HOUSE) (G2480001J)

Geo. Location | Aquifer Usage | Srce Water Char | Violations | Comments | Plants
Samples | Schedules

General Information

Owning PWS Name (ID): CITY OF KERMIT (2480001)

Plant Name (Number): **WALTON PS (14394)**

Properties

Source Number: **G2480001J**

Source Type: **GROUND WATER**

Body of Water Type:

Hydrologic Unit:

Surface Water Intake Type:

Source Monitoring: **N**

Comments:

Activity

Start Date:

End Date:

Activity Date:

Activity Status: **ACTIVE**

Activity Reason:

Drill Date: **04/28/1905**

Well Depth: **400**

Rated GPM: **220**

Tested GPM: **230**

Well Data: **CENOZOIC PECOS ALLUV**

Source was successfully retrieved.

Show Map

For questions or comments regarding information on this page, contact the TCEQ iWUD Web Manager

Version V2.7.0

Detailed PWS Source for SANTA ROSA 3 @ TEXAS & KERMIT (G2480001H)

General Information

Owning PWS Name (ID): **CITY OF KERMIT (2480001)**

Plant Name (Number): **UNDERWOOD PS (14403)**

Properties

Source Number: **G2480001H**

Source Type: **GROUND WATER**

Body of Water Type:

Hydrologic Unit:

Surface Water Intake Type:

Source Monitoring: **N**

Comments:

Activity

Start Date:

End Date:

Activity Date:

Activity Status: **ACTIVE**

Activity Reason:

Drill Date: **06/19/1905**

Well Depth: **405**

Rated GPM: **1000**

Tested GPM: **980**

Well Data:

Source was successfully retrieved.

Show Map

For questions or comments regarding information on this page, contact the TCEQ iWUD Web Manager

Version V2.7.0

Detailed PWS Source for UNDERWOOD 2 - ARKANSAS / HALLEY (G2480001B)

General Information

Owning PWS Name (ID): **CITY OF KERMIT (2480001)**

Plant Name (Number): **UNDERWOOD PS (14403)**

Properties

Source Number: **G2480001B**

Source Type: **GROUND WATER**

Body of Water Type:

Hydrologic Unit:

Surface Water Intake Type:

Source Monitoring: **N**

Comments:

Activity

Start Date:

End Date:

Activity Date:

Activity Status: **ACTIVE**

Activity Reason:

Drill Date: **06/20/1905**

Well Depth: **300**

Rated GPM: **330**

Tested GPM: **275**

Well Data:

Source was successfully retrieved.

Show Map

For questions or comments regarding information on this page, contact the TCEQ iWUD Web Manager

Version V2.7.0

Detailed PWS Source for UNDERWOOD 1 - UNDERWOOD / HALLEY (G2480001A)

General Information

Owning PWS Name (ID): **CITY OF KERMIT (2480001)**

Plant Name (Number): **UNDERWOOD PS (14403)**

Properties

Source Number: **G2480001A**

Source Type: **GROUND WATER**

Body of Water Type:

Hydrologic Unit:

Surface Water Intake Type:

Source Monitoring: **N**

Comments:

Activity

Start Date:

End Date:

Activity Date:

Activity Status: **ACTIVE**

Activity Reason:

Drill Date: **05/22/1905**

Well Depth: **700**

Rated GPM: **500**

Tested GPM: **470**

Well Data:

Source was successfully retrieved.

Show Map

For questions or comments regarding information on this page, contact the TCEQ iWUD Web Manager

Version V2.7.0

Detailed PWS Source for SANTA ROSA 7 @ JEFFEE ST (G2480001N)

Geo. Location | Aquifer Usage | Srce Water Char | Violations | Comments | Plants
Samples | Schedules

General Information

Owning PWS Name (ID): **CITY OF KERMIT (2480001)**

Plant Name (Number): **WALTON PS (14394)**

Properties

Source Number: **G2480001N**

Source Type: **GROUND WATER**

Body of Water Type:

Hydrologic Unit:

Surface Water Intake Type:

Source Monitoring: **N**

Comments:

Activity

Start Date:

End Date:

Activity Date:

Activity Status: **ACTIVE**

Activity Reason:

Drill Date: **06/22/1905**

Well Depth: **517**

Rated GPM: **0**

Tested GPM: **750**

Well Data:

Source was successfully retrieved.

Show Map

For questions or comments regarding information on this page, contact the TCEQ iWUD Web Manager

Version V2.7.0

Reference 29

Material Safety Data Sheet

Ashland Chemical Co.

Date Prepared: 01/26/98
Date Printed: 06/21/99
MSDS No: 999.0013947-008.005I

KWIK DRI 66

---

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: KWIK DRI 66
General or Generic ID: ALIPHATIC HYDROCARBON

Company
Ashland Chemical Co.
P.O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:
1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:
1-800-325-3751

---

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
ALIPHATIC HYDROCARBONS (STODDARD TYPE)	8052-41-3	100.0

---

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye
May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

Skin
Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing
Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation
Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness).

Target Organ Effects
Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity

occurs is specific to the male rat and the kidney effects are not expected to occur in humans.

Developmental Information
No data

Cancer Information
Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

Other Health Effects
No data

Primary Route(s) of Entry
Inhalation, Skin contact, Eye contact.

---

4. FIRST AID MEASURES

Eyes
If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Skin
Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing
Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians
This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions).

---

5. FIRE FIGHTING MEASURES

Flash Point
105.0 F (40.5 C)

Explosive Limit
(for product) Lower 1.0 Upper 6.0 %

Autoignition Temperature
500.0 F (260.0 C)

Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazards
Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media
regular foam, carbon dioxide, dry chemical.

Fire Fighting Instructions
Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating
Health - 0, Flammability - 2, Reactivity - 0

---

6. ACCIDENTAL RELEASE MEASURES

Small Spill
Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill
Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

---

7. HANDLING AND STORAGE

Handling
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five-gallon pails and larger metal containers, including tank cars and tank trucks, should be grounded and/or bonded when material is transferred. Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

---

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection
Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection
Wear resistant gloves (consult your safety equipment supplier)., To prevent repeated or prolonged skin contact, wear impervious clothing and boots..

Respiratory Protections
If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA

respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines
Component

ALIPHATIC HYDROCARBONS (STODDARD TYPE) (8052-41-3)
OSHA VPEL 100.000 ppm - TWA
ACGIH TLV 100.000 ppm - TWA

---

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for product) 315.0 F (157.2 C) @ 760 mmHg

Vapor Pressure
(for product) 1.670 mmHg @ 77.00 F

Specific Vapor Density
4.700 @ AIR=1

Specific Gravity
.770 - .788 @ 60.00 F

Liquid Density
6.420 lbs/gal @ 60.00 F
.770 kg/l @ 16.00 C

Percent Volatiles
100.0 %

Volatile Organic Compounds (VOC)
100.000 %
770.000 g/l
6.420 lbs/gal

Evaporation Rate
.20 (BUTYL ACETATE)

Appearance
CLEAR

State
LIQUID

Physical Form
HOMOGENEOUS SOLUTION

Color
COLORLESS

Odor
HYDROCARBON

pH
No data

Freezing Point
-99.4 F (-73.0 C)

Molecular Weight
140.0

Solubility in Water
NEGLIGIBLE

Heat Value
20505.000 BTU

Bulk Density
.860 lbs/ft3

10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product will not undergo hazardous polymerization.

Hazardous Decomposition
May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Chemical Stability
Stable.

Incompatibility
Avoid contact with: strong oxidizing agents.

---

11. TOXICOLOGICAL INFORMATION

No data

---

12. ECOLOGICAL INFORMATION

No data

---

13. DISPOSAL CONSIDERATION

Waste Management Information
Dispose of in accordance with all applicable local, state and federal regulations.

---

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101
DOT Description:
PETROLEUM DISTILLATES, N.O.S.,COMBUSTIBLE LIQUID,UN1268,III

Container/Mode:
55 GAL DRUM/TRUCK PACKAGE

NOS Component:
NAPHTHA

RQ (Reportable Quantity) - 49 CFR 172.101
Not applicable

---

15. REGULATORY INFORMATION

US Federal Regulations
TSCA (Toxic Substances Control Act) Status
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a)
None listed

SARA 302 Components - 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden Release of Pressure( )

SARA 313 Components - 40 CFR 372.65
None

International Regulations
Inventory Status
DSL (CANADA) The intentional ingredients of this product are listed.

State and Local Regulations

California Proposition 65
None

New Jersey RTK Label Information

STODDARD SOLVENT	8052-41-3

Pennsylvania RTK Label Information

STODDARD SOLVENT	8052-41-3

---

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Last page

Add to My List

Download

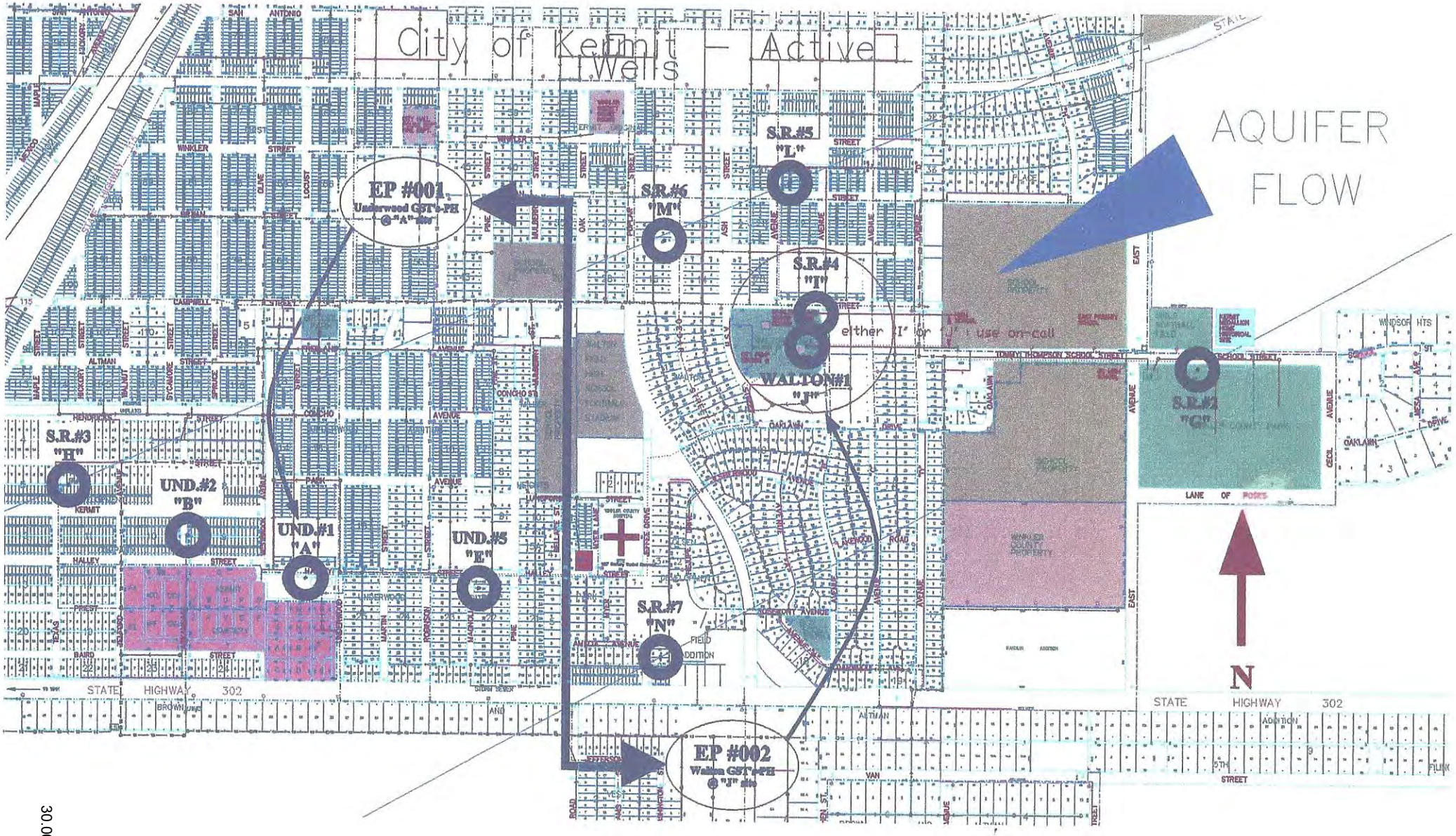
Reference 30

Kandice Spera

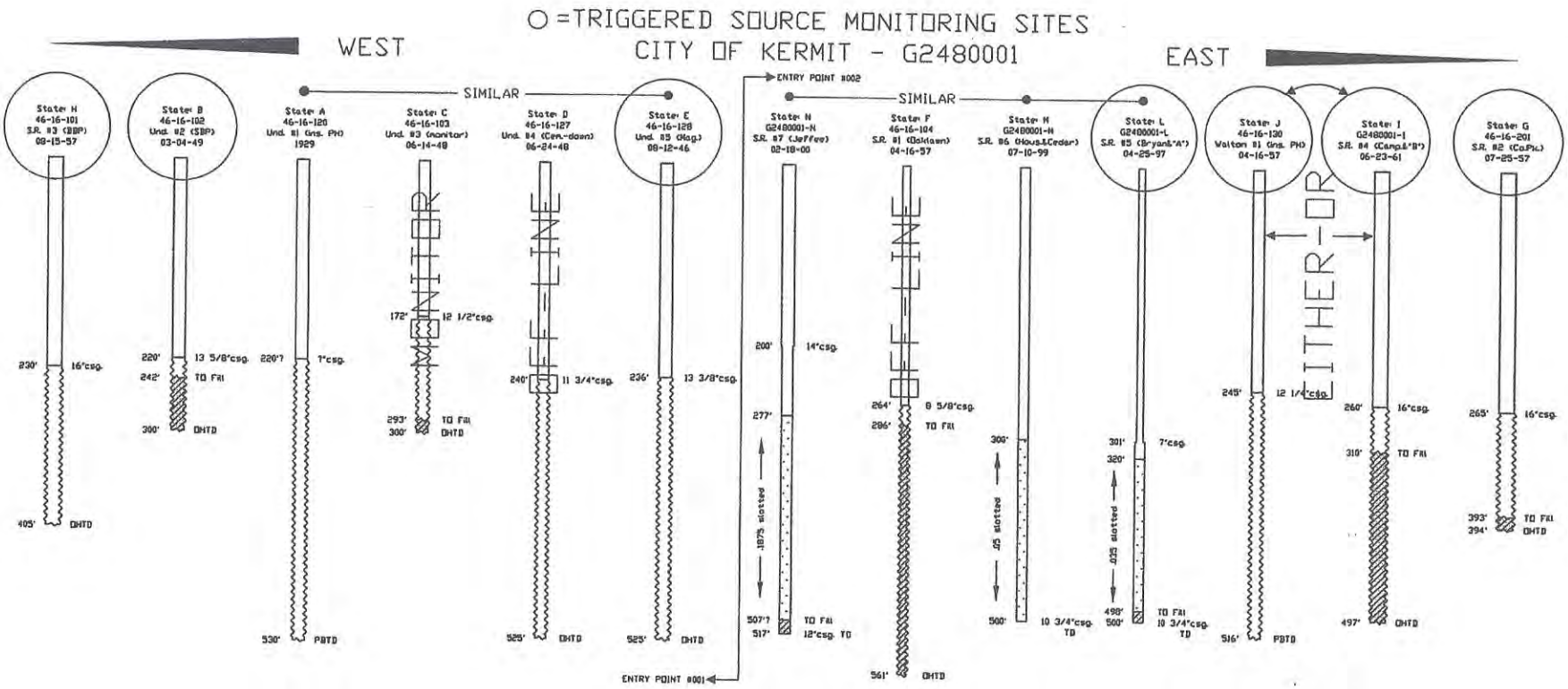
From: John Shepard <dir.publicworks@cityofkermit.net>
Sent: Monday, February 10, 2014 12:09 PM
To: Kandice Spera
Cc: Gloria Saenz; Mary
Subject: Water Well Schematics and Logs
Attachments: Wells & Logs Info.pdf

Kandice – I'm sending this info again – earlier data probably eaten up by "e-mail monster" – sorry! Like I mentioned earlier, could not find any log info for some wells. Data was scattered, even on my computer, but I've bundled it this time in case I need to re-send! Hope this is what you were looking for. Thanks and have a good one!

John C. Shepard
Director of Public Works
City of Kermit
110 S. Tornillo St.
Kermit, Texas 79745
432-586-3468 office
432-586-2220 fax
432-940-1380 cell
dir.publicworks@cityofkermit.net


City of Kermit - Active Wells
AQUIFER FLOW
N
EP #001
Underwood GST's-PH
@ "A" site
EP #002
Walton GST's-PH
@ "J" site
S.R.#3
"H"
UND.#2
"B"
UND.#1
"A"
UND.#5
"E"
S.R.#6
"M"
S.R.#5
"L"
S.R.#4
"I"
either "I" or "J" use on call
WALTON#1
"J"
S.R.#7
"N"
S.R.#2
"G"
STATE HIGHWAY 302
STATE HIGHWAY 302

30.0002



Kandice,

Here I was comparing wells of similar construction. Ignore O mark-ups, but A good E to W X-sectional!

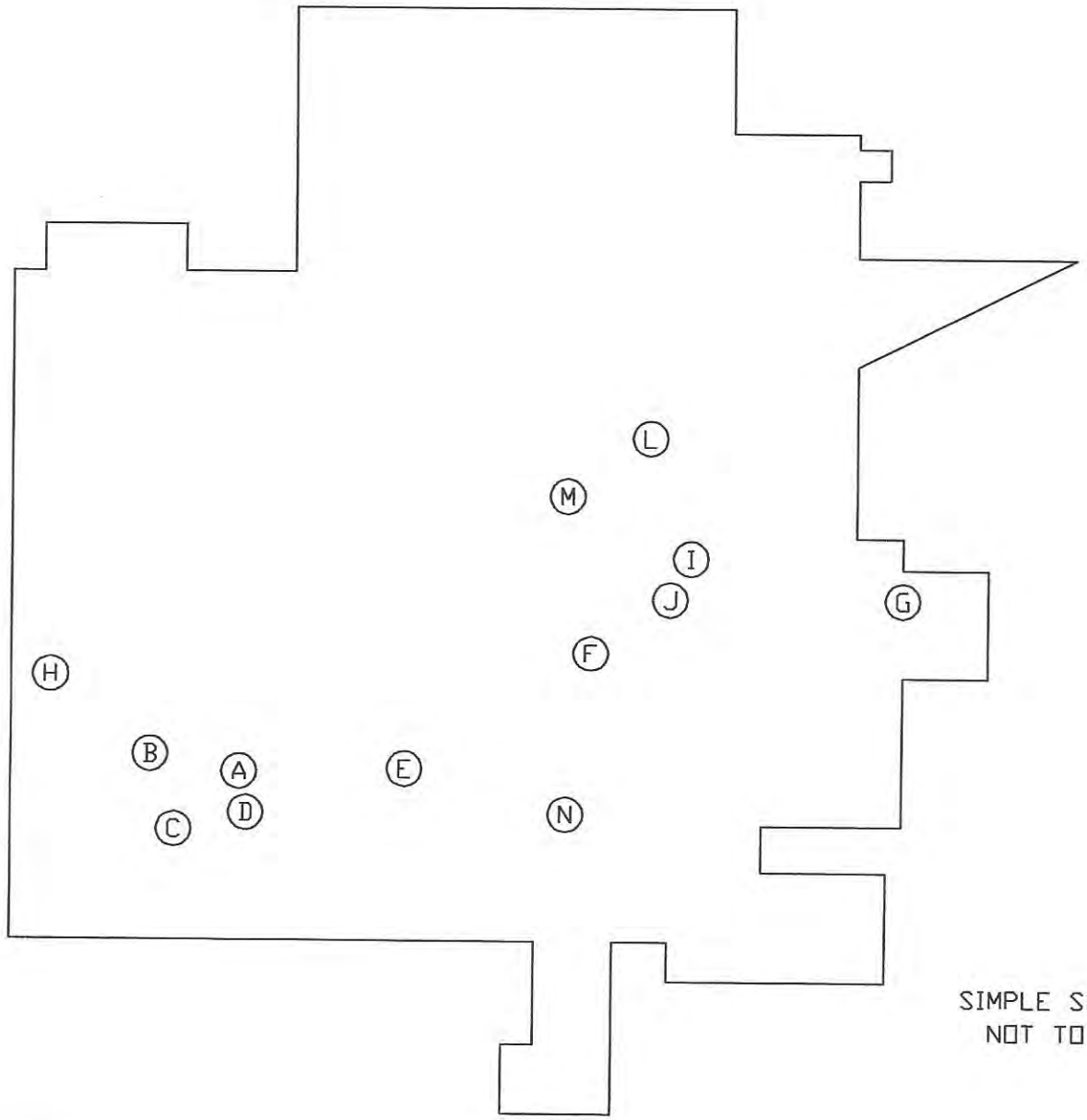
30.0003

CITY OF KERMIT

G2480001

WATER WELL SITE MAP

A = UNDERWOOD #1 (INSIDE P.H.)
B = UNDERWOOD #2 (SMALL BALL PARK)
C = UNDERWOOD #3 (MONITOR)
D = UNDERWOOD #4 (CEMETERY)
E = UNDERWOOD #5 (MAGNOLIA)
F = SANTA ROSA #1 (OAKLAWN)
G = SANTA ROSA #2 (COUNTY PARK)
H = SANTA ROSA #3 (BIG BALL PARK)
I = SANTA ROSA #4 (CAMPBELL AND "B")
J = WALTON #1 (INSIDE P.H.)
L = SANTA ROSA #5 (BRYAN AND "A")
M = SANTA ROSA #6 (HOUSTON AND CEDAR)
N = SANTA ROSA #7 (JEFFEE)



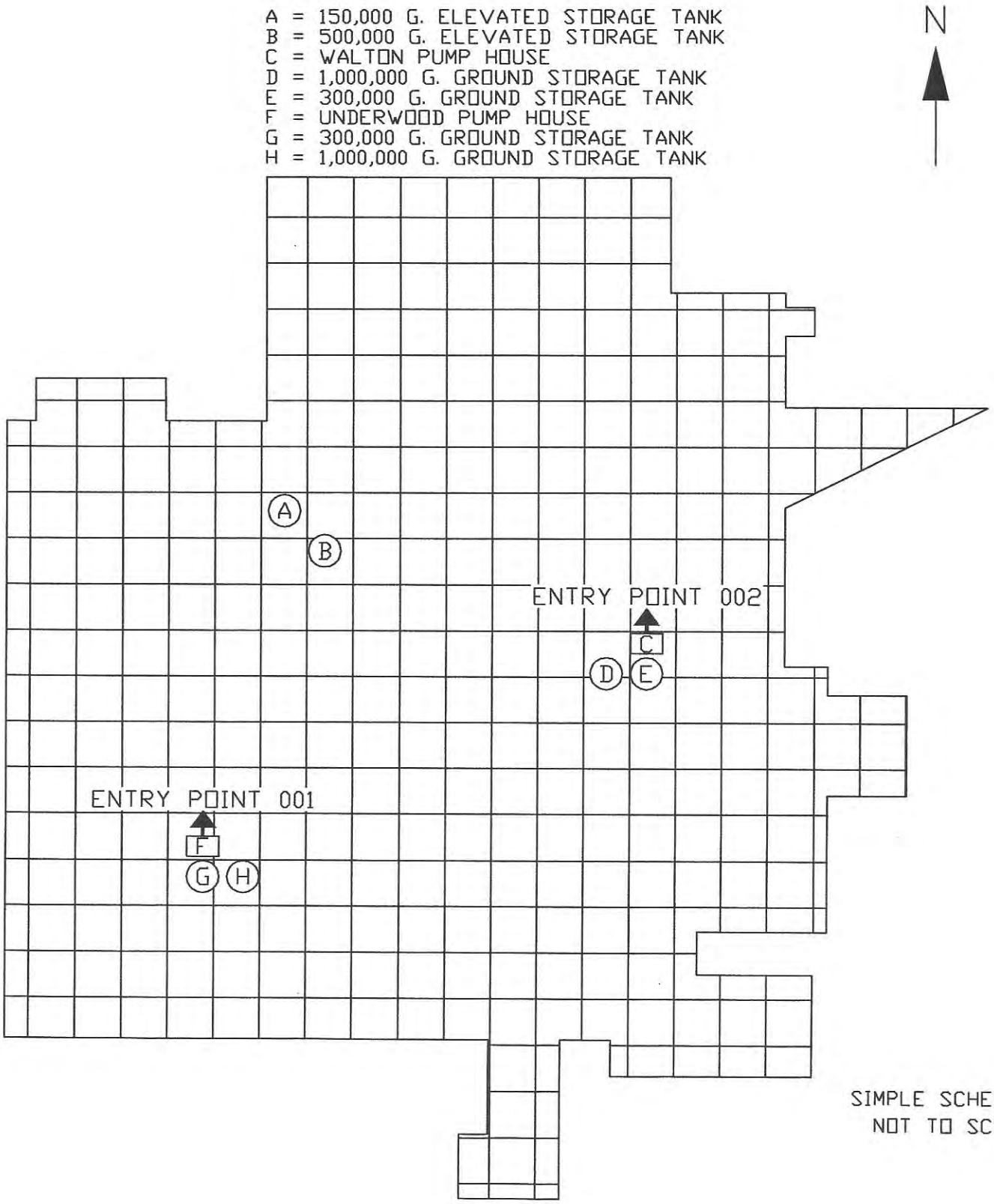
SIMPLE SCHEMATIC
NOT TO SCALE

CITY OF KERMIT

G2480001

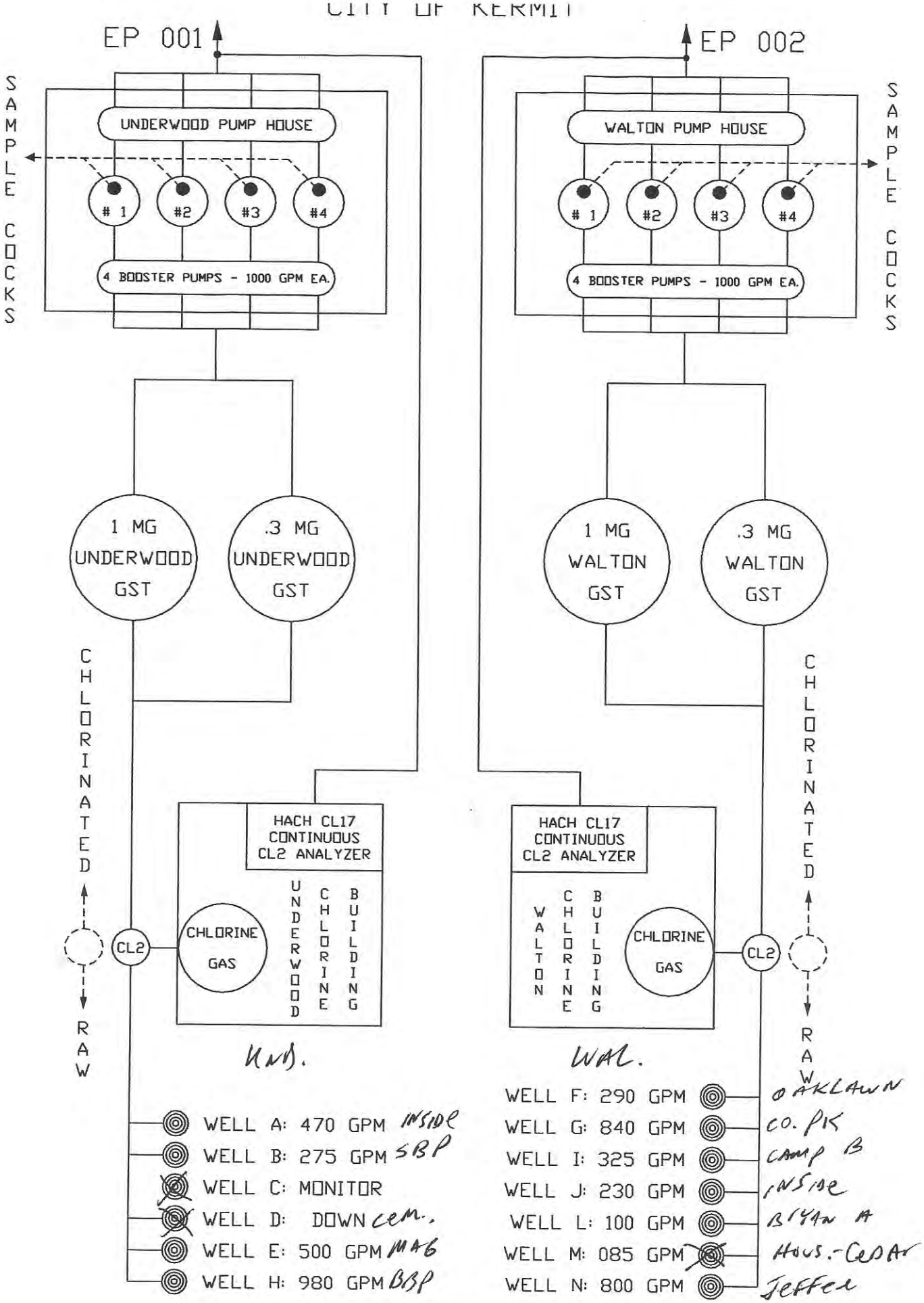
DISTRIBUTION SYSTEM

A = 150,000 G. ELEVATED STORAGE TANK
B = 500,000 G. ELEVATED STORAGE TANK
C = WALTON PUMP HOUSE
D = 1,000,000 G. GROUND STORAGE TANK
E = 300,000 G. GROUND STORAGE TANK
F = UNDERWOOD PUMP HOUSE
G = 300,000 G. GROUND STORAGE TANK
H = 1,000,000 G. GROUND STORAGE TANK



SIMPLE SCHEMATIC
NOT TO SCALE

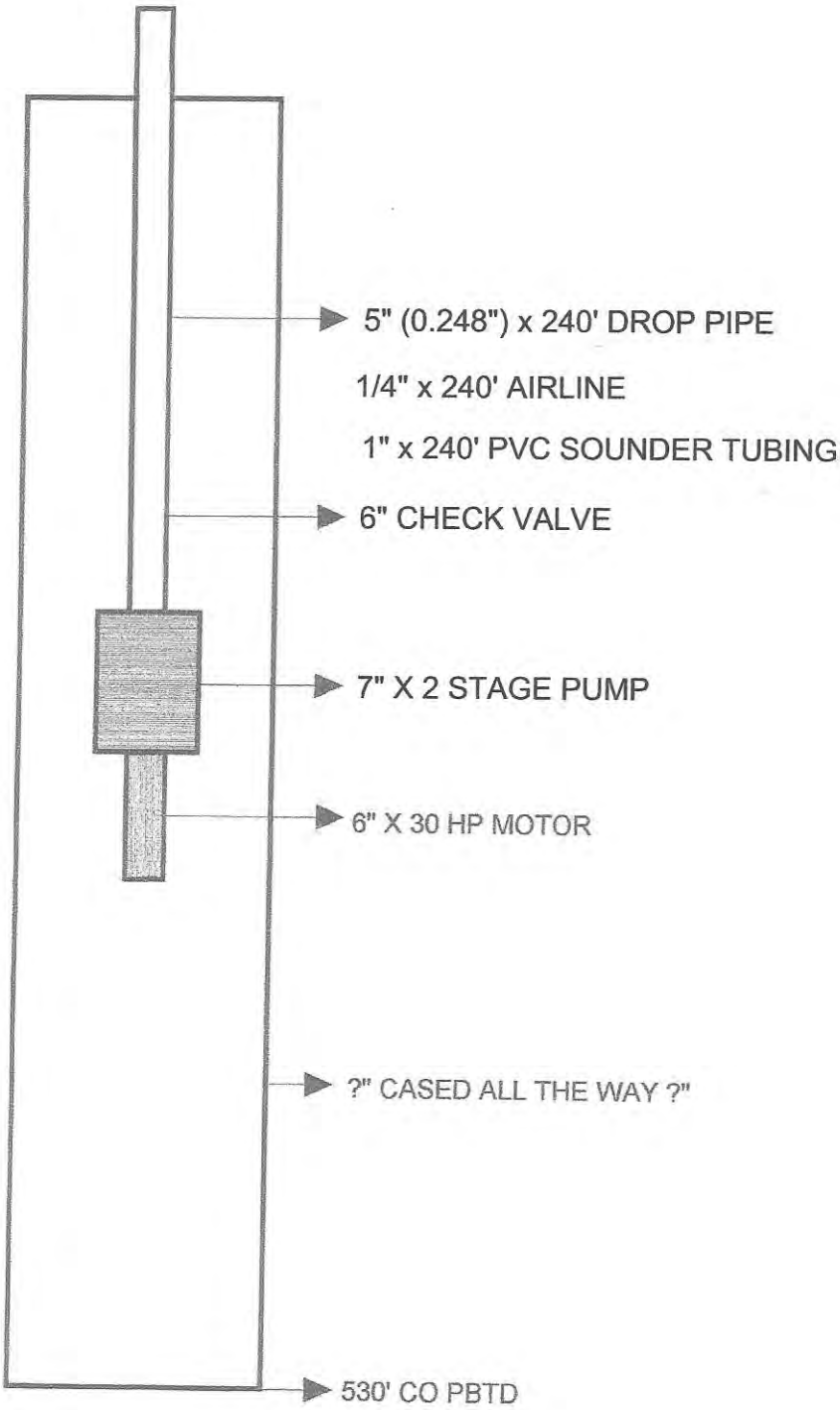
CITY OF KERMIT



(SIMPLE SCHEMATIC - NOT TO SCALE)

UNDERWOOD #1
09/04/2012

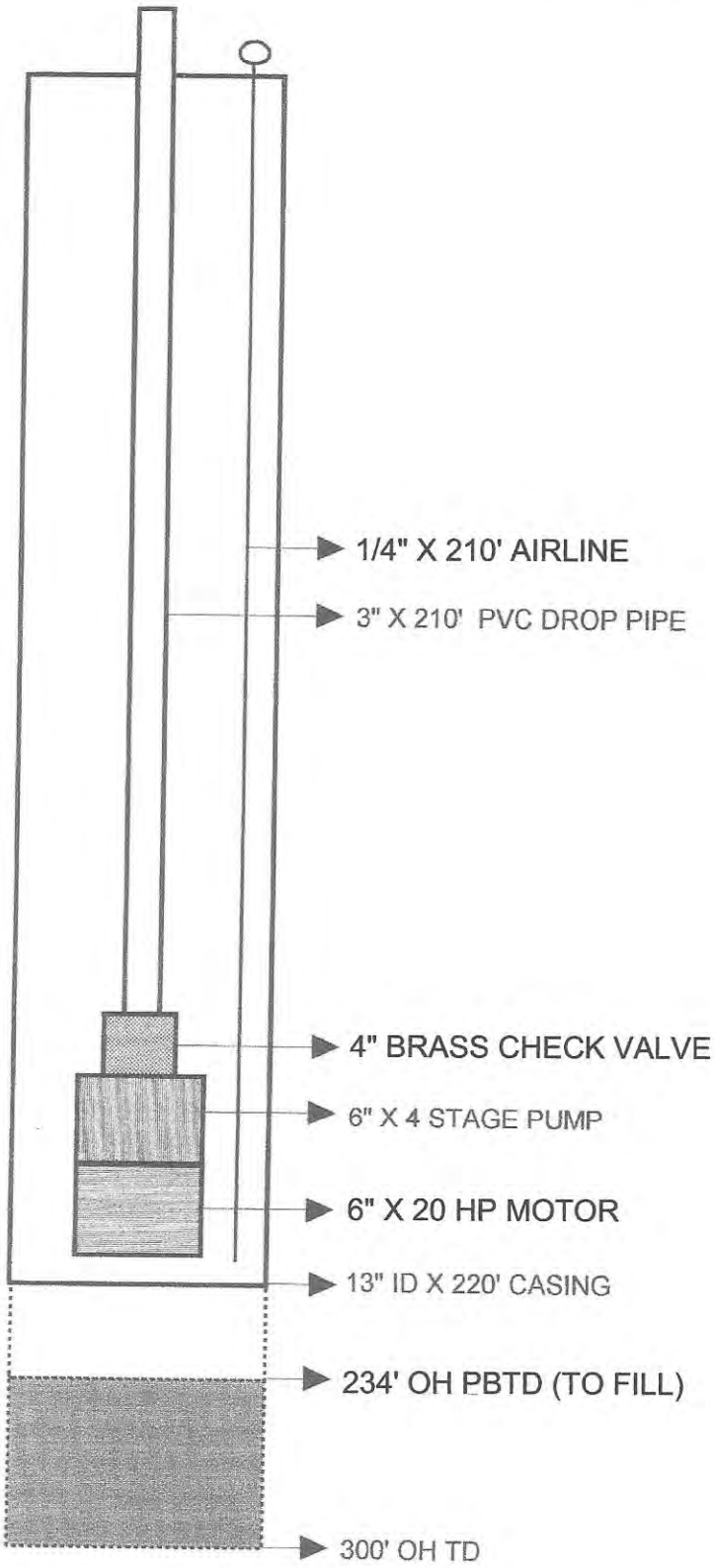
DRILLED IN 1929 BY BUD HUFF; STATE #'S 46-16-120; "A"
INSIDE UNDERWOOD PUMP HOUSE, 600 BLK. W. HALLEY ST.
31.846667* LAT. / -103.096944* LON.



UNDERWOOD #2

09/02/2010

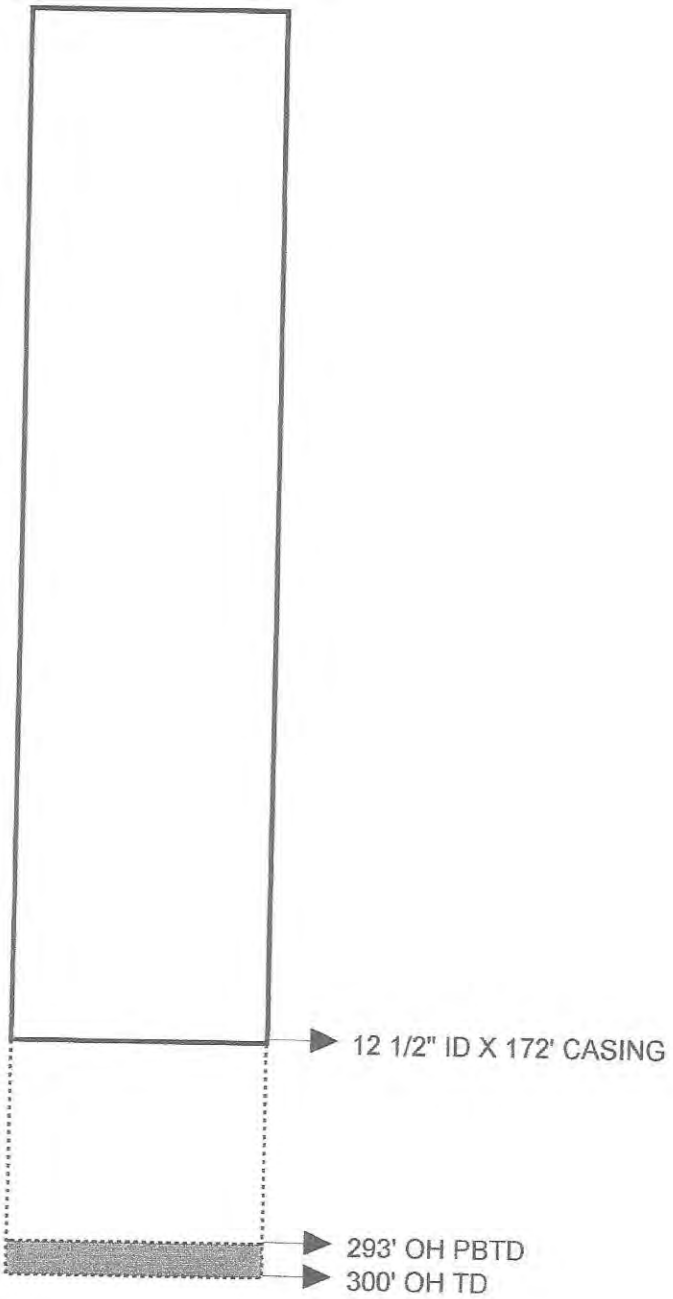
DRILLED 1949 BY BOB GLYNN; STATE #'S 46-16-102; "B"
N. OF CEMETERY, 800 BLK. W. HALLEY ST.
31.846944* LAT. / -103.099722* LON.



UNDERWOOD #3

STATIC FLUID LEVEL MONITOR WELL

DRILLED IN 1948 BY J.D.COLE; STATE #'S 46-16-103; "C"
S. SIDE OF 200 BLK. W. HWY. 302
31.843819* LAT. / -103.098326* LON.

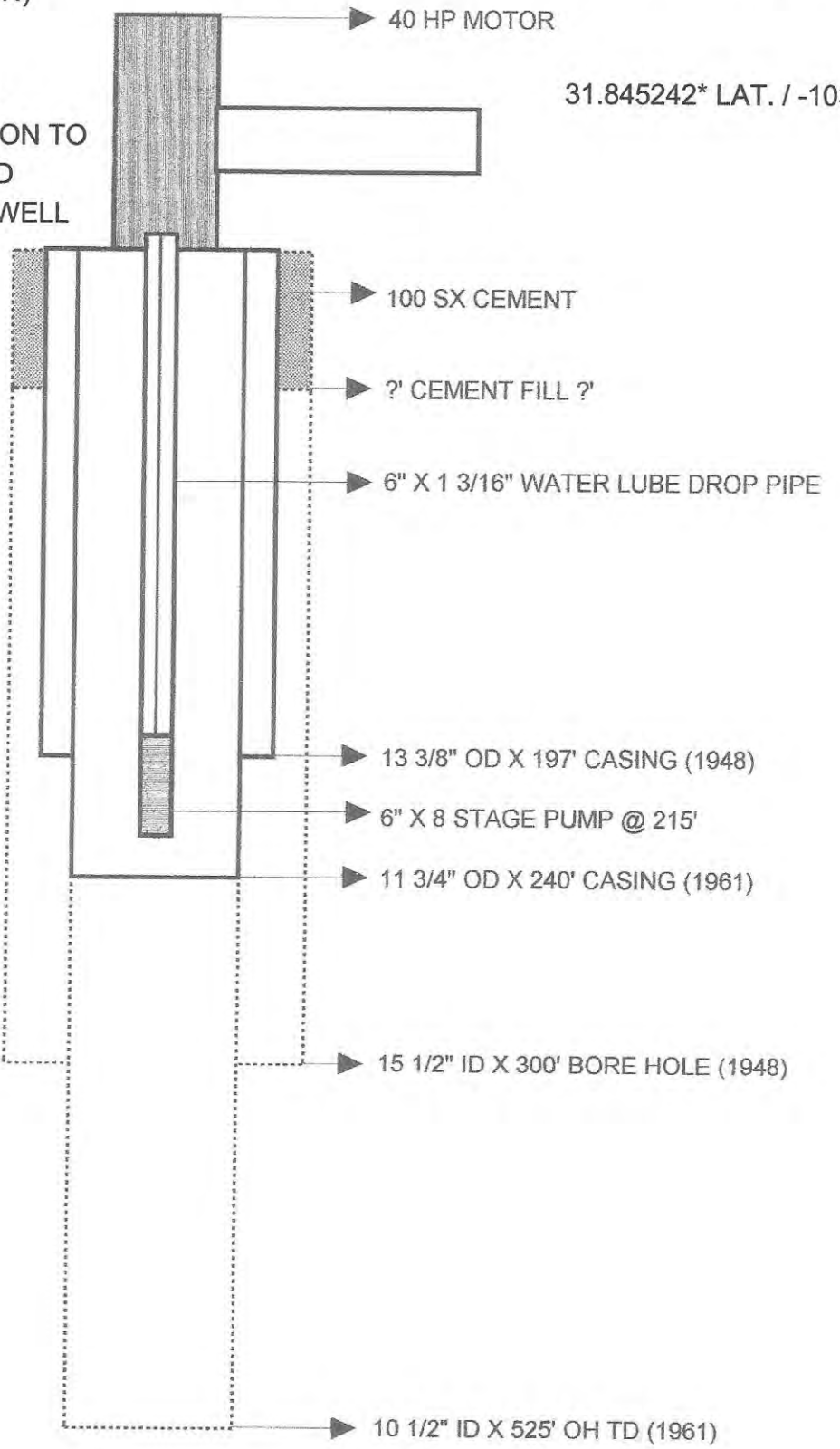


UNDERWOOD #4
02/23/1978
(DOWN)

DRILLED IN 1948 BY ROBERT GLYNN & M.H. WADE DRILLING CO.
STATE #'S 46-16-127; "D"; INSIDE S.E. CORNER OF CEMETERY

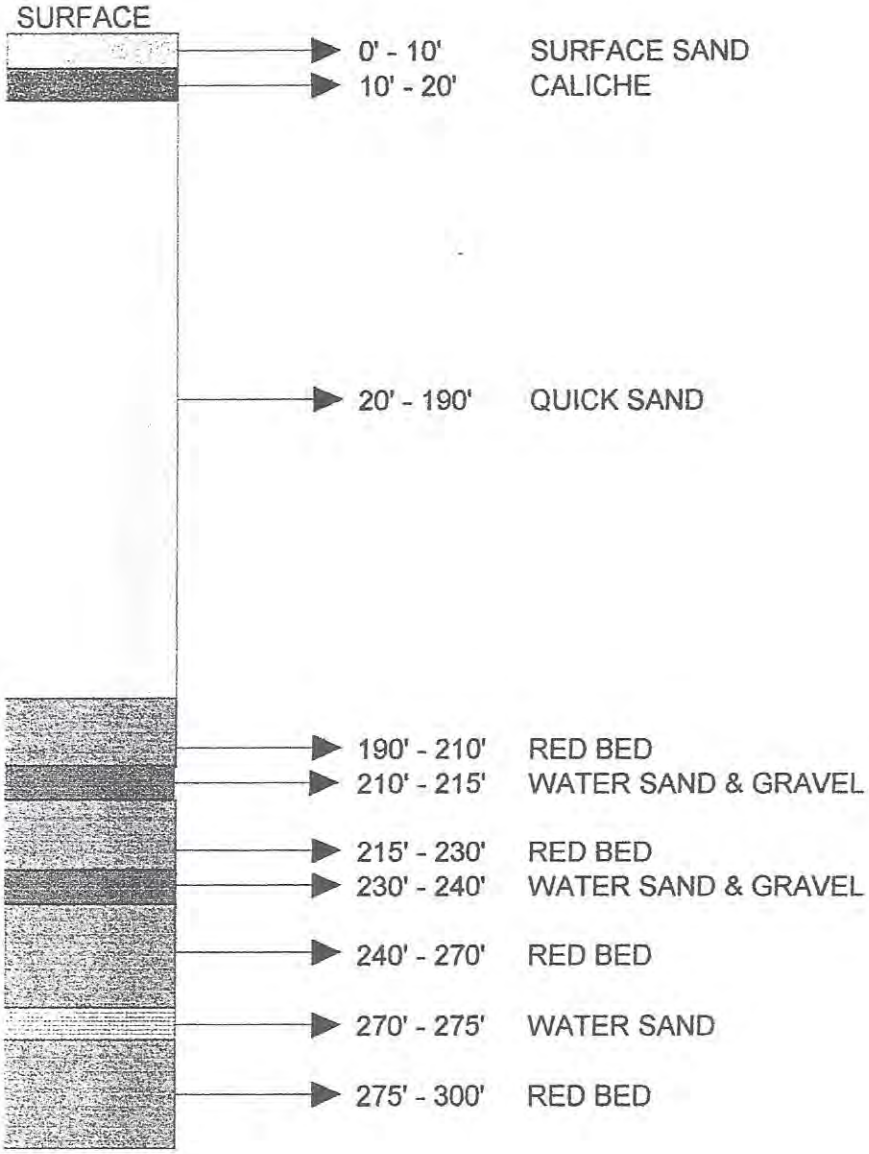
POSSIBLE CONVERSION TO DEDICATED CEM. IRR. WELL

31.845242* LAT. / -103.095610* LON.



FORMATION LOG

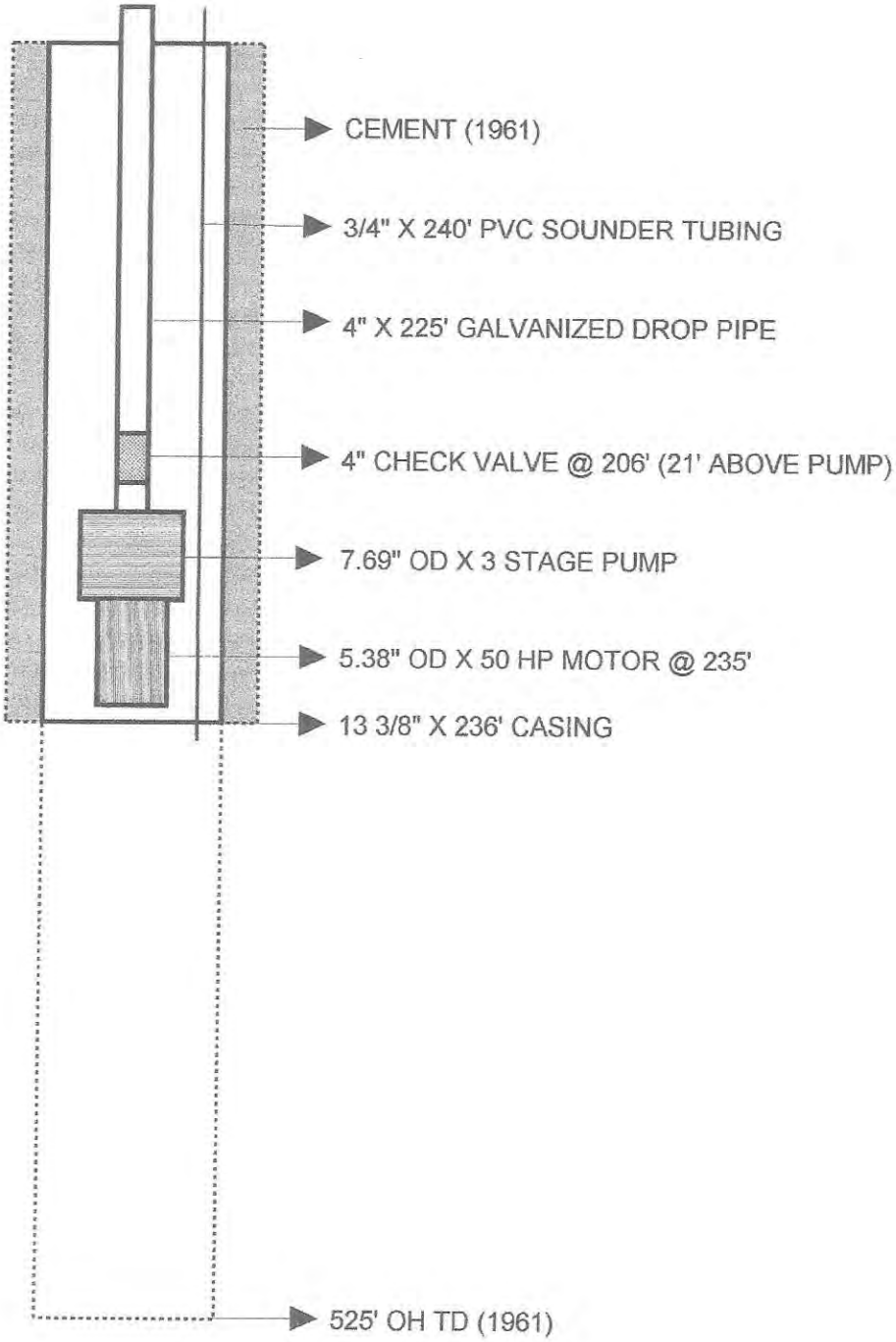
Underwood #4



UNDERWOOD #5

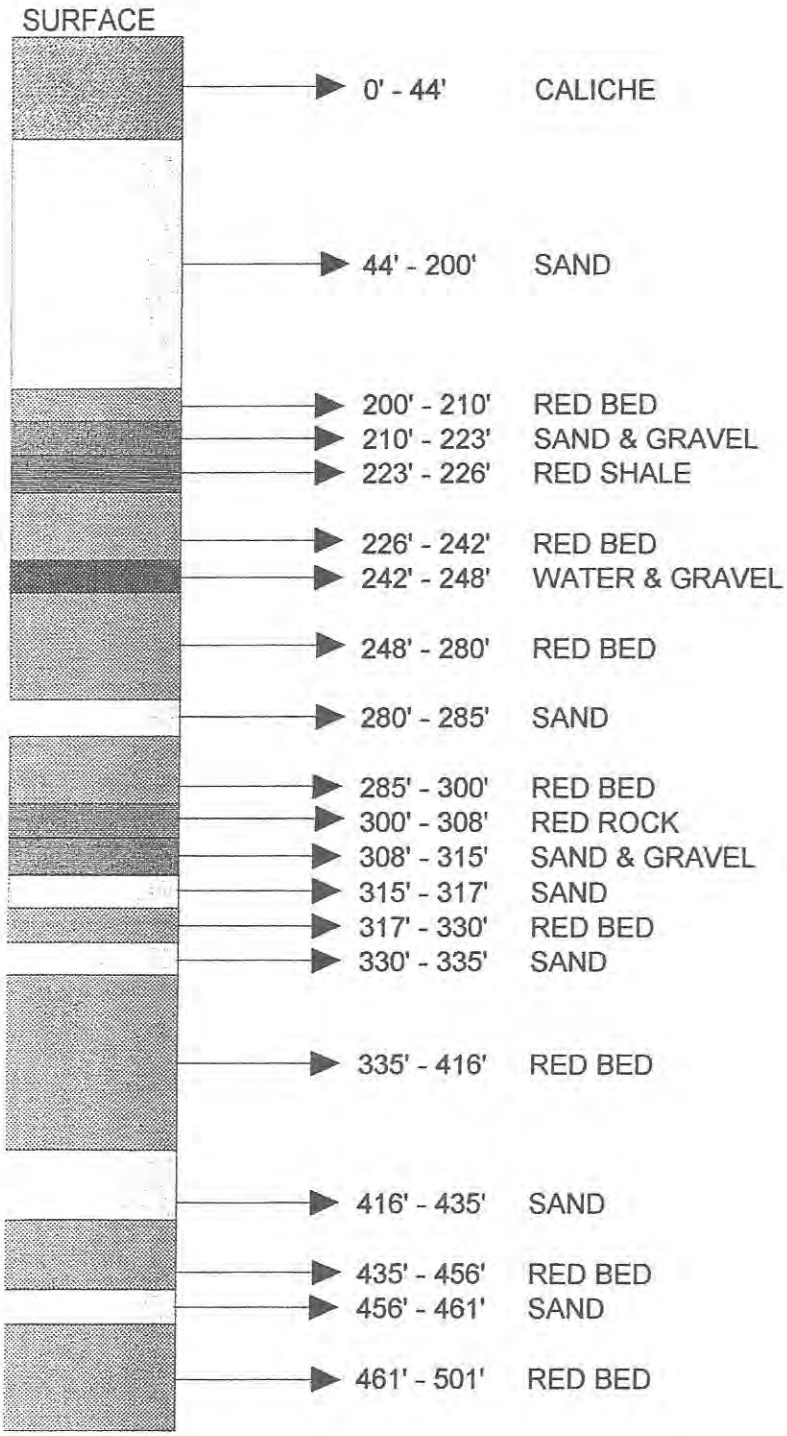
05/17/1996

DRILLED IN 1946 BY PERMIAN WELL SERVICE
STATE #'S 46-16-128; "E"; E. SIDE 900 BLK. MAGNOLIA ST.
31.847778* LAT. / -103.093056* LON.



FORMATION LOG

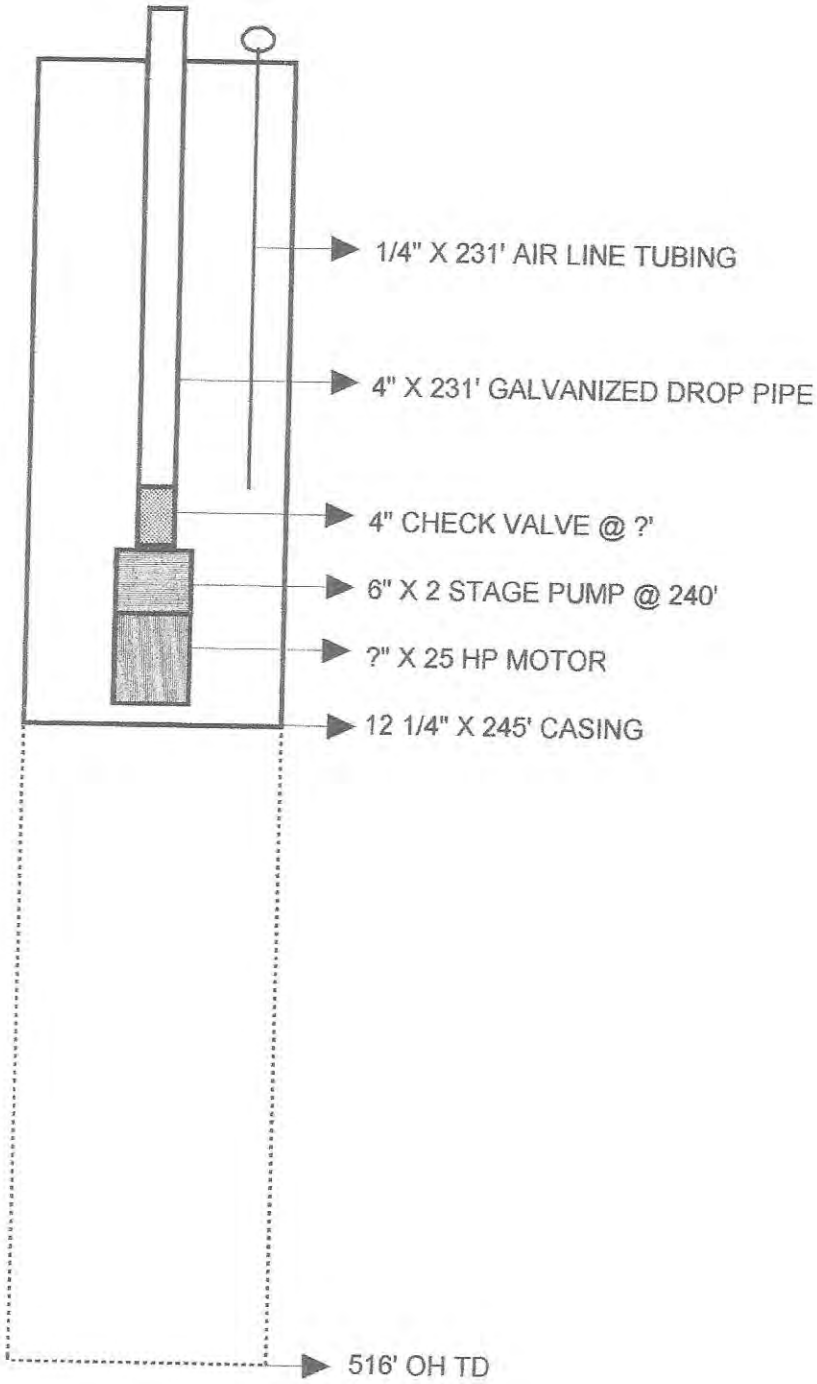
UNDERWOOD #5



WALTON #1

01/19/1990

DRILLED IN 1957 BY ?
STATE #'S 46-16-130,"J"; INSIDE WALTON PUMP HOUSE, 500 BLK. S. AVE 'B'
31.853938* LAT. / -103.087871* LON.

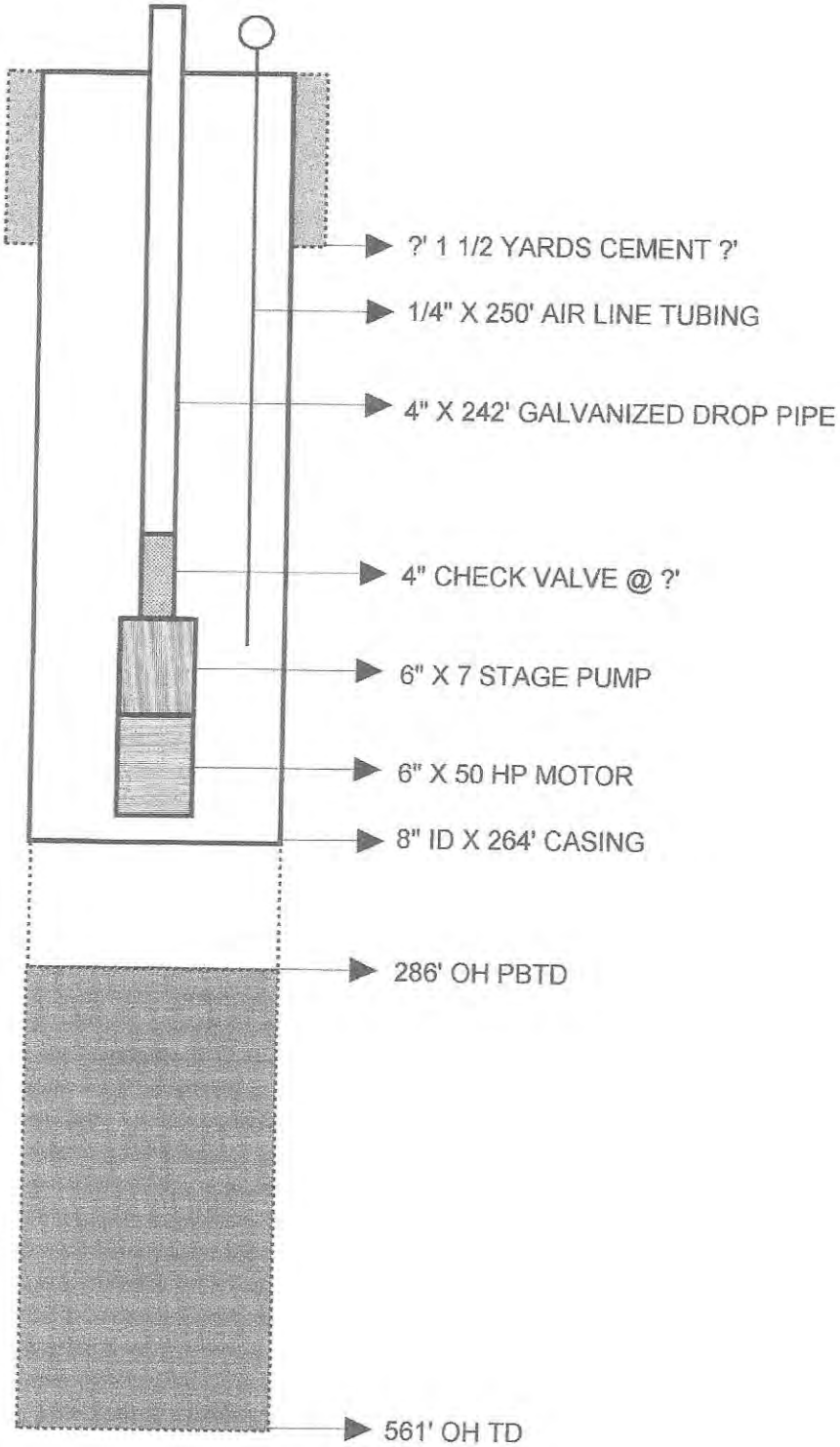


SANTA ROSA #1

04/20/1990

LOCKED OFF & TAGGED OUT
11/01/2009

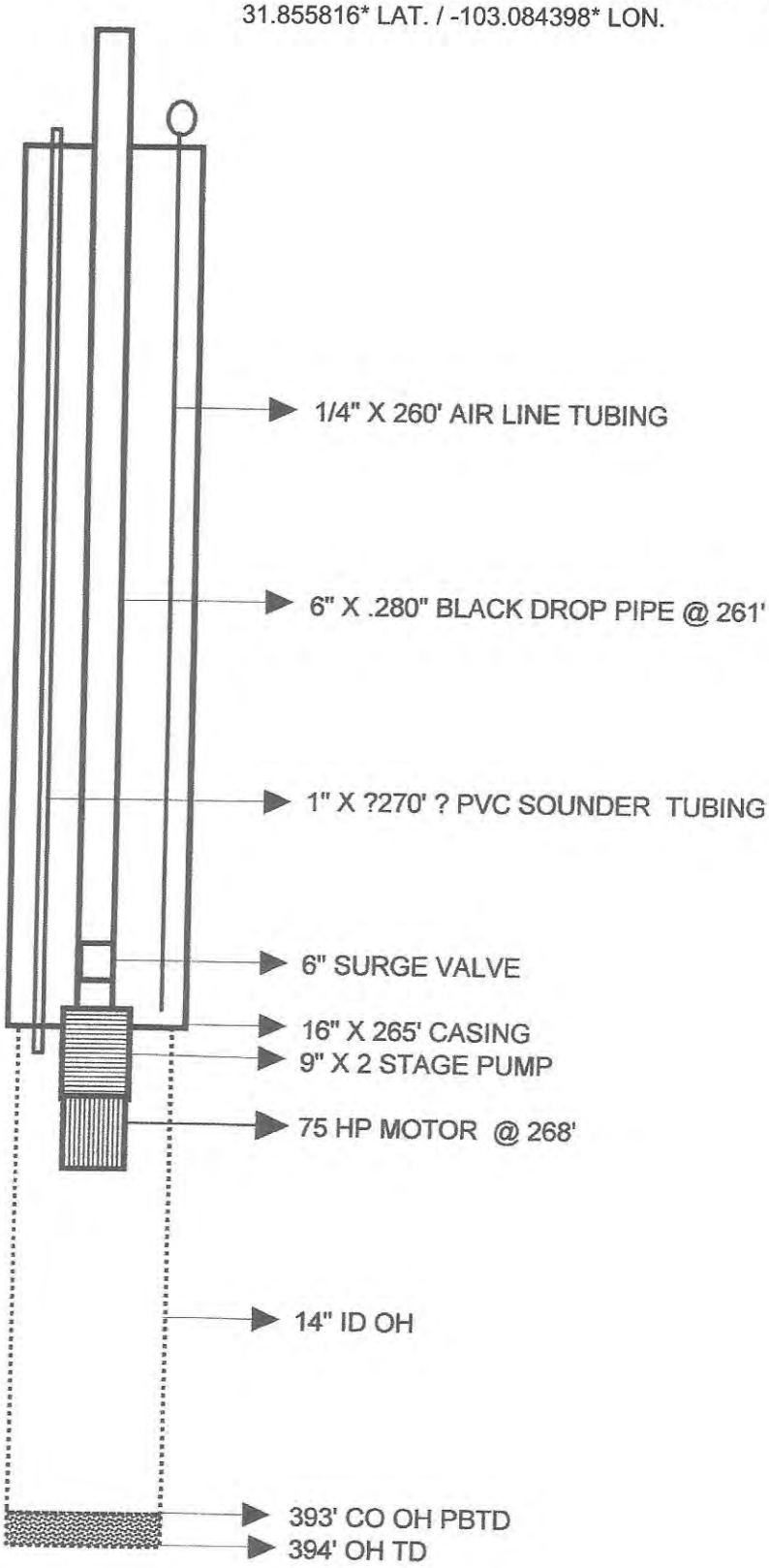
DRILLED IN 1957 BY BUD CARR & J.D. COLE
STATE #'S 46-16-104; "F"; N OF OAKLAWN ST.(POPLAR & CEDAR ALLEY)
31.851843* LAT. / -103.089698* LON.



SANTA ROSA #2

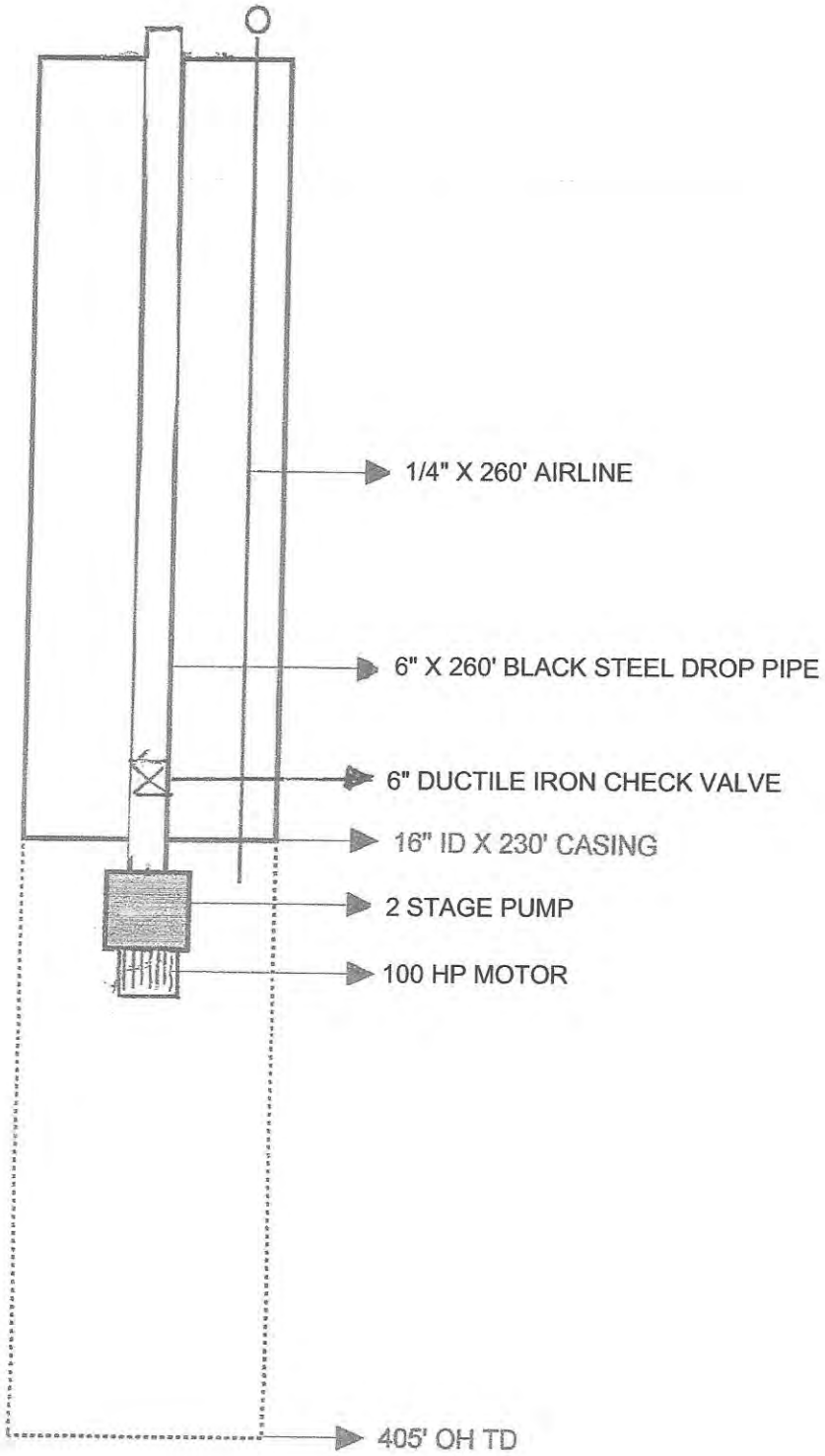
07/08/2009

DRILLED IN 1957 BY HOMER SCHUTTEN
STATE #'S 46-16-201, "G"; N. SIDE OF COUNTY PARK
31.855816* LAT. / -103.084398* LON.



SANTA ROSA #3
07/15/2011

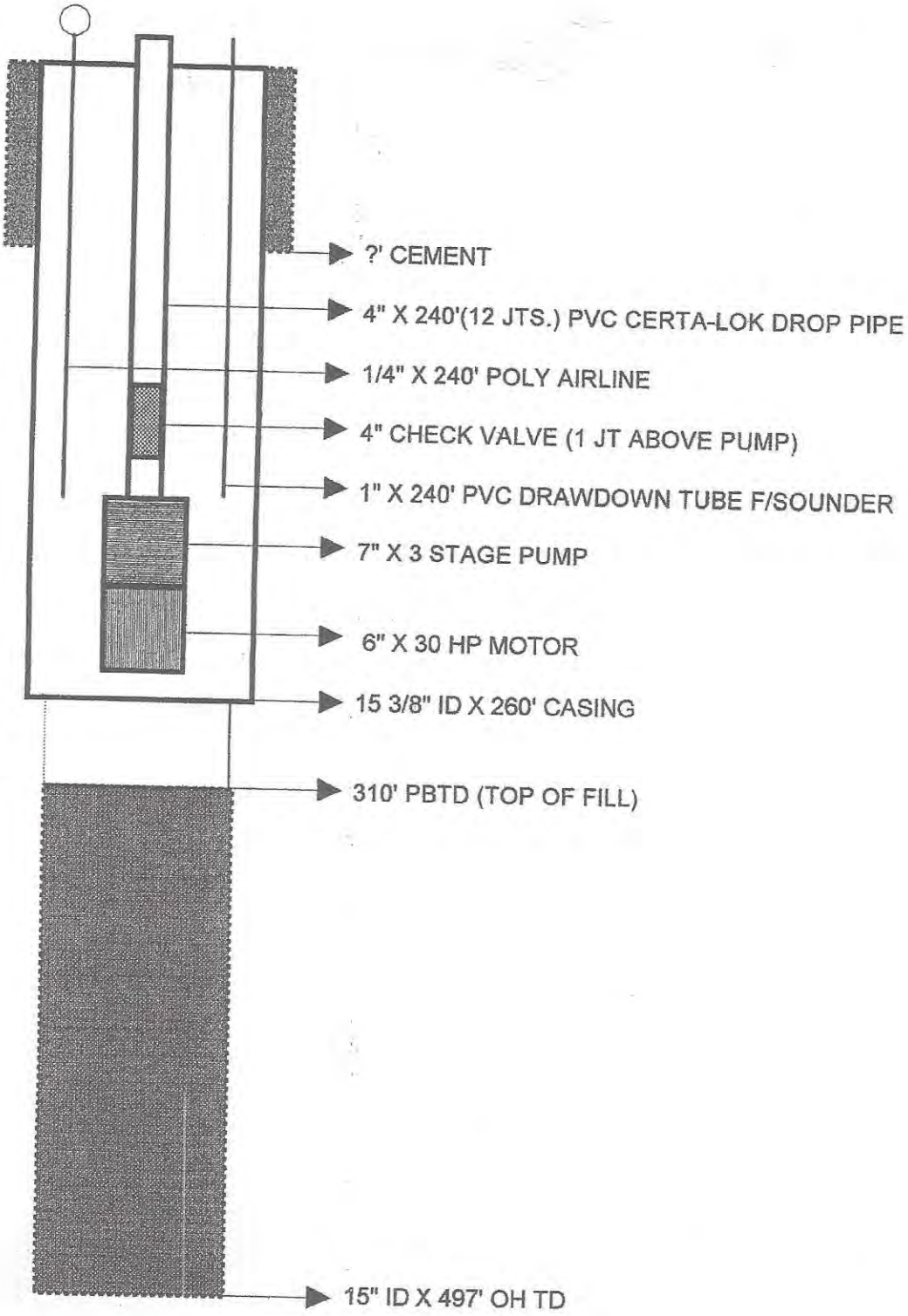
DRILLED IN 1957 BY HOMER SCHUTTEN
STATE #'S 46-16-101, "H"; NW OF CEMETERY
31.847244* LAT. / -103.102485* LON.



SANTA ROSA #4

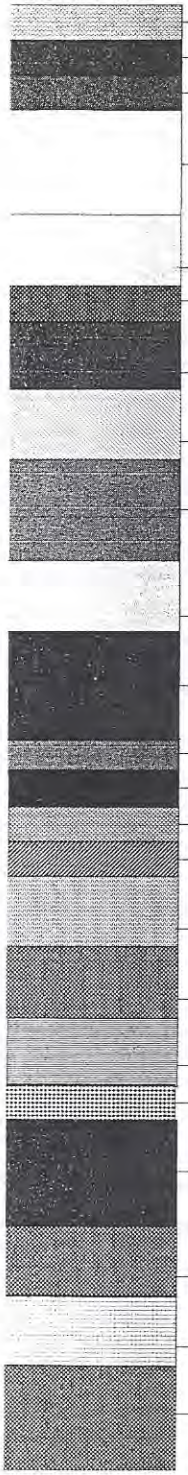
03/26/2012

DRILLED IN 1961 BY LAYNE-TEXAS CO.
STATE#'S 46-16-129, "I"; SW CORNER OF CAMPBELL & "B" ST'S.
31.854687* LAT. / -103.087907* LON.



FORMATION LOG

SANTA ROSA #4



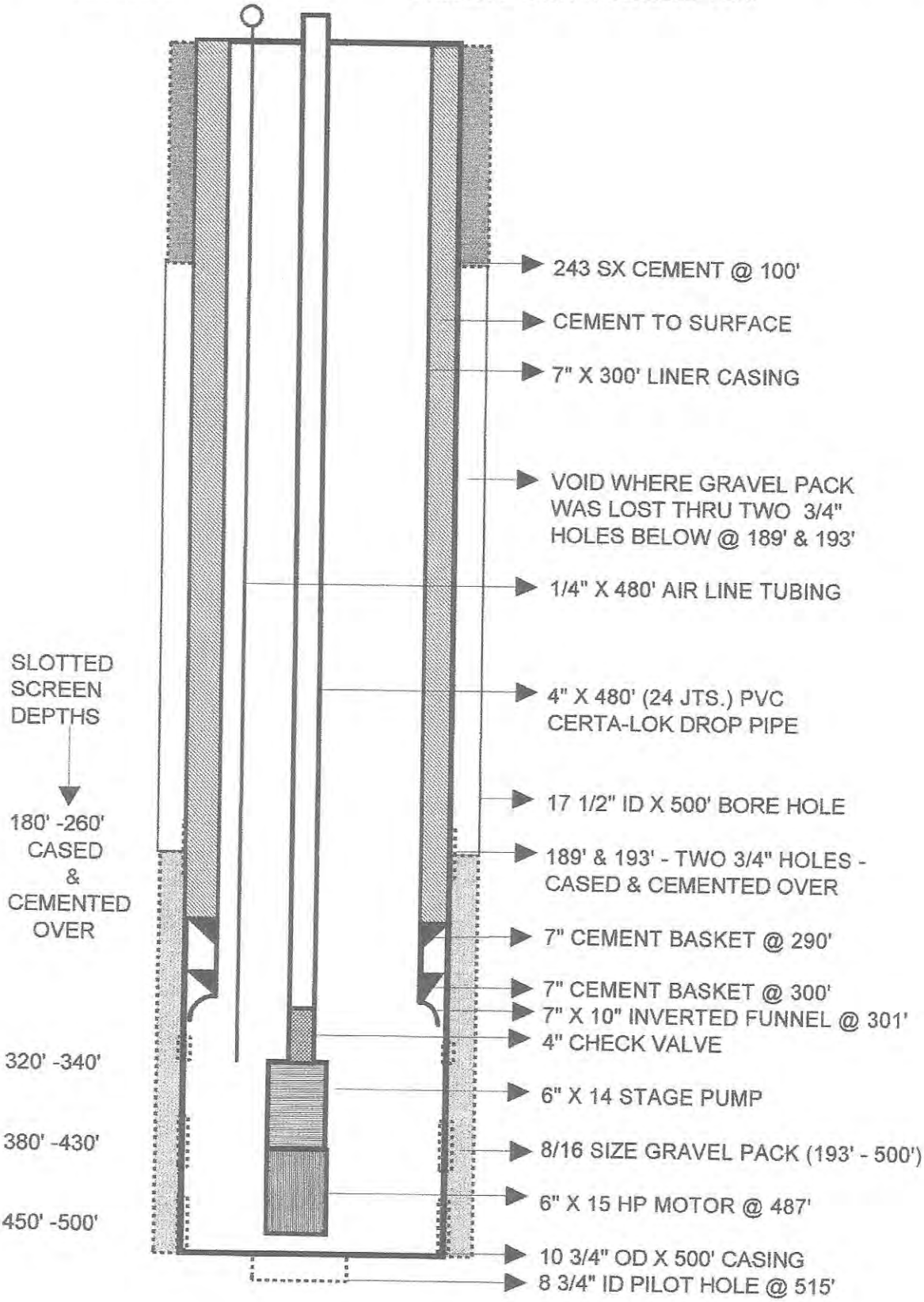
SURFACE

0' - 4'	SOIL
4' - 15'	SAND
15' - 28'	CALICHE
28' - 75'	WHITE SAND
75' - 90'	BROWN SAND
90' - 95'	SAND & BOULDERS
95' - 108'	SAND
108' - 122'	SAND & CALICHE
122' - 150'	SANDY CLAY
150' - 170'	BROWN SAND
170' - 202'	BROWN SAND & CLAY STREAKS
202' - 212'	SANDY CLAY
212' - 225'	RED CLAY
225' - 228'	GRAVEL
228' - 241'	RED & GRAY CLAY
241' - 264'	RED BED
264' - 288'	HARD SANDSTONE
288' - 303'	SANDSTONE & CLAY STREAKS
303' - 315'	HARD SAND & GRAVEL
315' - 392'	BROWN SAND & CLAY STREAKS
392' - 418'	HARD SANDSTONE
418' - 435'	HARD SAND
435' - 497'	HARD SANDSTONE

SANTA ROSA #5

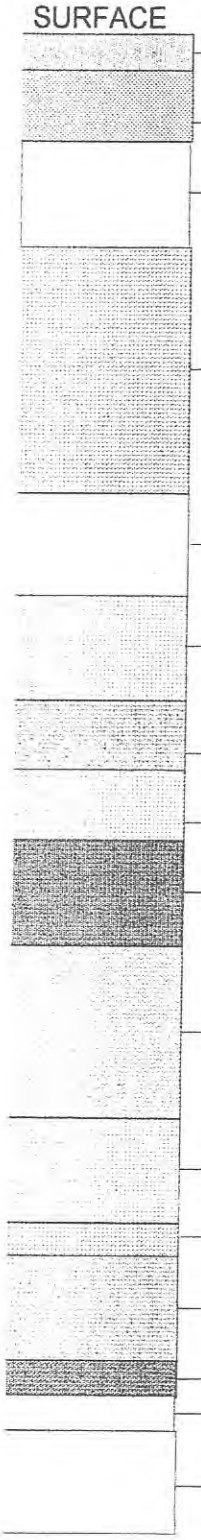
03/21/2003

DRILLED IN 1997 BY WEST TEXAS WATER WELL
STATE # G2480001-L, NE CORNER OF BRYAN AND "A" ST'S.
31.856871* LAT. / -103.089298* LON.



FORMATION LOG

SANTA ROSA #5

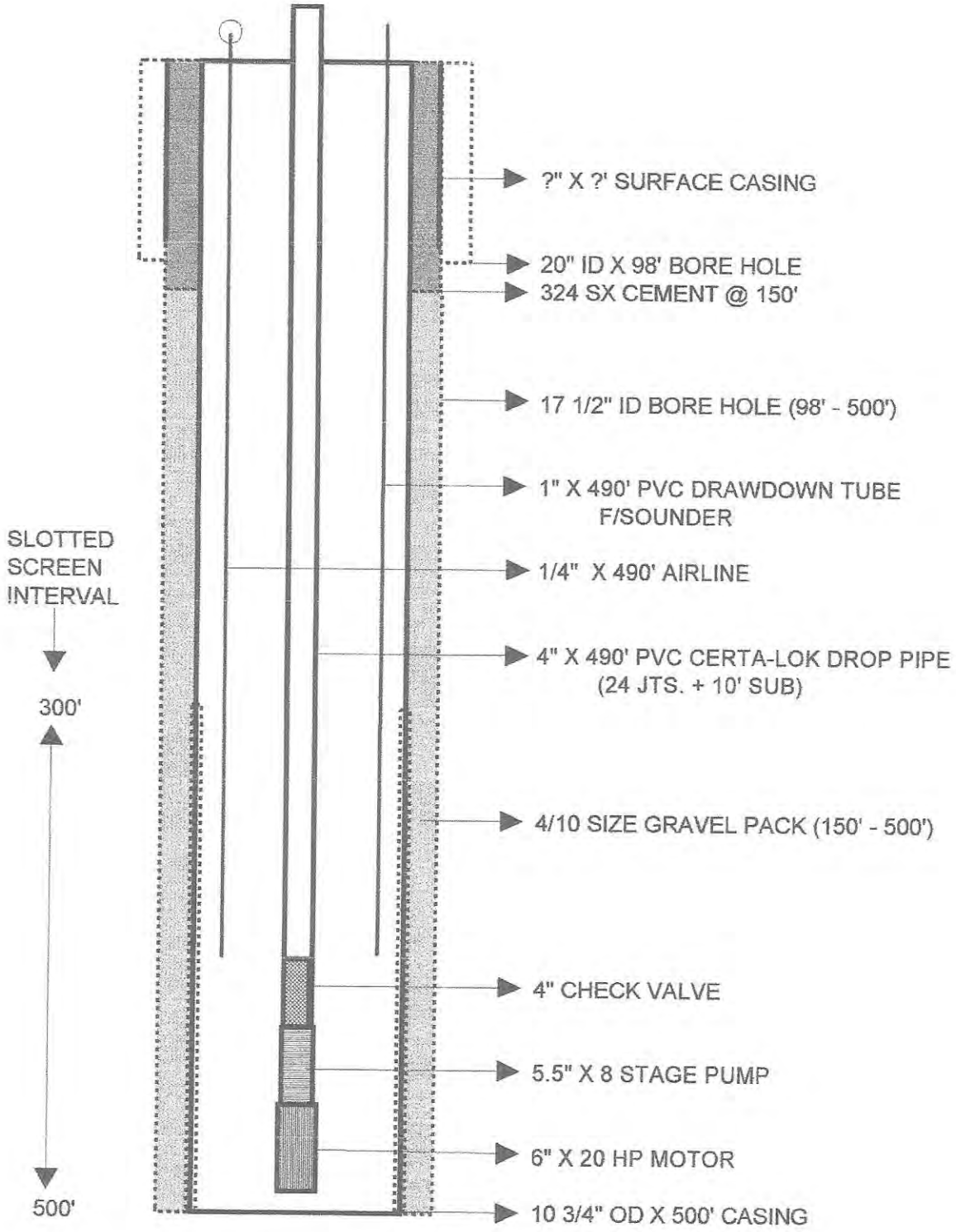


SURFACE

0' - 6'	TOP SOIL & SAND
6' - 30'	CALICHE
30' - 70'	SANDY CLAY W/CALICHE STREAKS
70' - 190'	BROWN SAND W/CLAY & GRAVEL STREAKS
190' - 220'	LOOSE RED SAND W/GRAVEL STREAKS
220' - 250'	TAN SANDY CLAY W/GRAVEL
250' - 270'	RED SANDY CLAY W/GRAVEL
270' - 285'	RED CLAY
285' - 320'	RED CLAY W/SANDSTONE STREAKS
320' - 370'	RED SANDSTONE W/RED CLAY TRACES
370' - 400'	RED SANDSTONE & RED CLAY W/GRAVEL TRACES
400' - 410'	GRAY SANDY CLAY W/GRAVEL
410' - 440'	RED SANDY CLAY W/GRAVEL
440' - 450'	RED SANDY CLAY & GRAVEL W/SANDSTONE STREAKS
450' - 460'	RED LOOSE SAND W/RED CLAY STREAKS
460' - 500'	SANDY CLAY & SAND W/GRAVEL

SANTA ROSA #6
02/20/2003

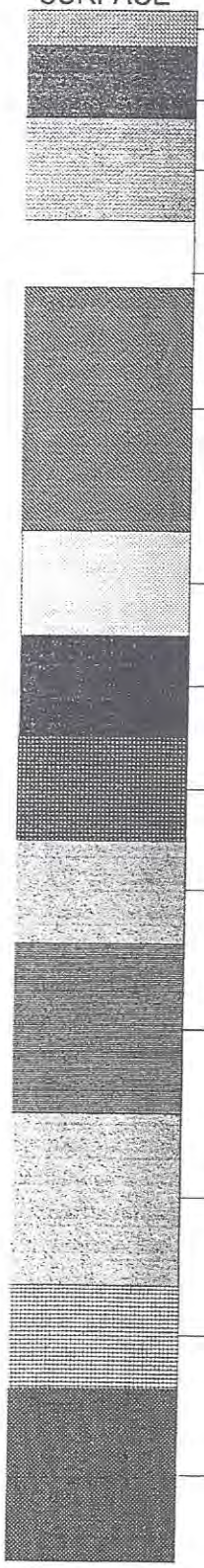
DRILLED IN 1999 BY WEST TEXAS WATER WELL
STATE # G2480001-M, NW CORNER OF HOUSTON & CEDAR ST'S.
31.855154* LAT. / -103.091527* LON.



FORMATION LOG

SANTA ROSA #6

SURFACE

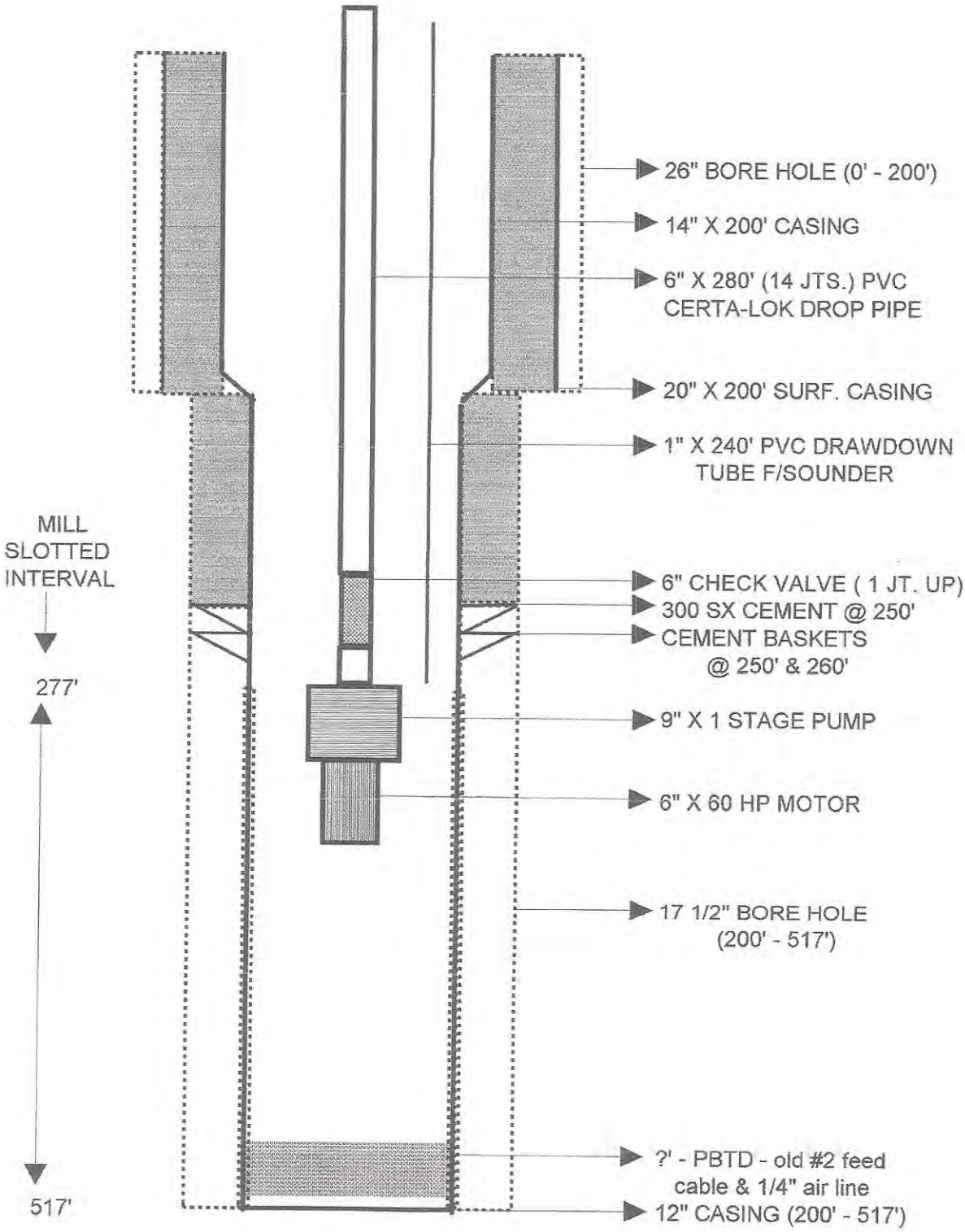


0' - 5'	TOPSOIL
5' - 30'	CALICHE & SAND CALICHE
30' - 60'	SAND W/CLAY STREAKS
60' - 87'	DRY SAND
87' - 172'	SANDY CLAY
172' - 203'	RED SAND W/CLAY STREAKS
203' - 233'	RED SAND & CLAY W/SMALL GRAVEL
233' - 263'	RED CLAY
263' - 293'	RED CLAY & SANDSTONE
293' - 353'	RED SANDSTONE W/CLAY STREAKS
353' - 413'	RED CLAY & SANDSTONE
413' - 444'	SANDSTONE W/RED CLAY STREAKS
444' - 500'	SANDY CLAY W/SANDSTONE STREAKS

SANTA ROSA #7

11/26/2008

DRILLED IN 2000 BY WEST TEXAS WATER WELL
STATE # G2480001-N, NE OF CORNER OF JEFFEE ST. & W. HWY. 302
31.847576* LAT. / -103.088757* LON.



FORMATION LOG

SANTA ROSA #7

SURFACE

0' - 2'	TOPSOIL
2' - 3'	CALICHE
3' - 10'	SAND
10' - 13'	HARD WHITE LIMESTONE
13' - 20'	SANDSTONE W/SAND STREAKS
20' - 50'	FAST DRILLING TAN SAND
50' - 60'	BROWN SAND
60' - 70'	TAN SAND W/LIMESTONE STREAKS
70' - 180'	FAST DRILLING BROWN SAND
180' - 190'	BROWN SANDY CLAY W/SAND STREAKS
190 - 210'	RED CLAY W/FINE GRAVEL TRACES
210' - 230'	SAND & SANDSTONE (LOST CIRCULATION)
230' - 270'	RED SHALE W/SANDSTONE STREAKS
270' - 290'	RED SANDY CLAY & SANDSTONE
290' - 300'	RED SANDSTONE W/CLAY TRACES
300' - 510'	BROKEN SANDSTONE (LOST CIRCULATION)
510' - 517'	RED CLAY

Reference 31

Field Summary Report for Public Water Supply and Private Water Well Sampling

City of Kermit PWS No. 2480001
Kermit, Winkler County, Texas

Assessment, Investigation, and Remediation Services (AIRS Contract)
Contract No. 582-11-91058
Work Order No. 256-0019

Prepared for

Texas Commission on Environmental Quality
Superfund Site Discovery and Assessment Program, Remediation Division
12100 Park 35 Circle
Austin, Texas 78753

Prepared by

EA Engineering, Science, and Technology, Inc.
405 S. Highway 121
Building C, Suite 100
Lewisville, Texas 75067
(972) 315-3922

August 2013
EA Project No. 1486519

FIELD SUMMARY REPORT
City of Kermit PWS No. 2480001
Kermit, Winkler County, Texas

This Field Summary Report summarizes public water supply (PWS) and private water well sampling activities conducted in June 2013 in the surrounding area of the City of Kermit PWS No. 2480001 (site), located at 110 South Tornillo Street, Kermit, Winkler County, Texas. As requested by the Texas Commission on Environmental Quality (TCEQ), EA Engineering, Science, and Technology, Inc. (EA) performed technical activities in accordance with the TCEQ's Work Order No. 256-0019, and the approved site specific Field Sampling Plan (FSP).

Tables, figures, and field notes are provided at the end of the report. Appendix A contains field documentation of the field effort. Appendix B contains analytical data reports from the TestAmerica Savannah Laboratory. Appendix C contains the data review summary.

The EA representative performing the sampling activities was Mark Kelly, accompanied by Kandice Spera and Omar Valdez of the TCEQ.

EA performed field activities in accordance with the following TCEQ-approved documents:

- EA's Health and Safety Plan (EA 2013).
- TCEQ's Quality Assurance Project Plan for the Federal Superfund Program, Document Number QTRAK#12-463 (TCEQ 2012)
- TCEQ's Field Sampling Plan (FSP) (TCEQ 2013)

HEALTH AND SAFETY

The site-specific Health and Safety Plan (EA 2013) was reviewed at the start of each field day to ensure a safe working environment. No safety incidents were reported during the field effort.

WEATHER CONDITIONS

During the sampling activities, the temperature ranged from 81 to 106º Fahrenheit, with winds from 5 to 10 miles per hour.

SITE ACTIVITIES

The following section provides the details of the field activities performed at the site on 4-6 June 2013. During the sampling event, EA collected groundwater samples from 14 PWS wells and 4 private water wells. Two field duplicate samples, three field blanks, and three trip blanks were also collected. The sample locations and trichloroethylene (TCE) results are presented on Figure 1. Analytical results for the identified chemicals of concern are listed in Table 1.

PWS and Private Water Well Sample Collection

Field data sheets are attached for the groundwater samples collected. The below listed activities were performed prior to, during, and after sample collection.

- Water well purging (TCEQ SOP 7.9)
- Measurement of field parameters (TCEQ SOP 7.5)
- Collection of volatile organic compounds (TCEQ SOP 6.3)
- Sampling a drinking water well (TCEQ SOP 7.10)
- Collection of quality assurance/quality control samples (TCEQ SOP 6.5)
- Documentation (TCEQ SOP 6.1)
- Sample handling and control (TCEQ SOP 6.4)
- Site Restoration (TCEQ SOP 1.3)
- Decontamination (TCEQ SOP 1.5)

The samples were shipped to the TestAmerica Savannah Laboratory and analyzed for volatile organic compounds using EPA drinking water method 524.2. Groundwater analytical results for the contaminants of concern are presented in Table 1. The full analytical results are presented in Appendix B.

Analytical Data Review and Usability

EA reviewed all data associated with analytical testing performed by TestAmerica, Inc. The data review summary is presented in Appendix C.

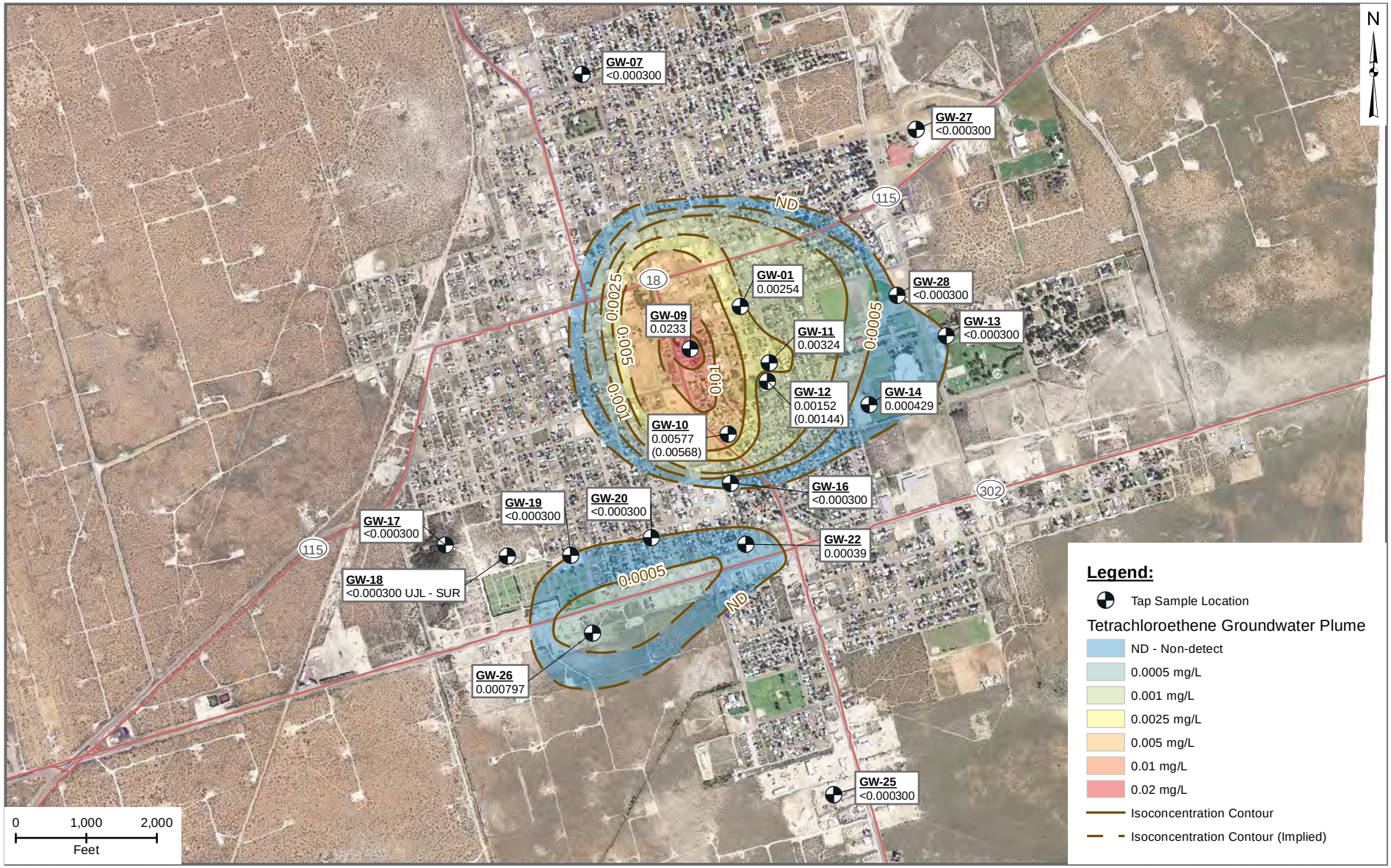
REFERENCES

EA Engineering, Science, and Technology, Inc. (EA). 2013. "Health and Safety Plan, Site Eligibility Sampling, City of Kermit PWS No. 2480001 Site, Kermit, Winkler County, Texas." March.

Texas Commission on Environmental Quality (TCEQ). 2012. "Quality Assurance Project Plan for the Federal Superfund Program, Document Number Q-TRAK # 12-463." May.

TCEQ. 2013. "Field Sampling Plan for the City of Kermit PWS No. 2480001 Site, Kermit, Winkler County, Texas." March.

Figure



TCEQ

EA

City of Kermit PWS
ID # 248001
110 South Tornillo Street
Kermit, Winkler County, Texas

Image Source: 2008-2009 Texas Orthoimagery Program, Texas Strategic Mapping Program, TNRIS, 2009.

Notes:
All units are mg/L
() indicates duplicate sample result
UJL-SUR= Sample result is below laboratory detection limit. Estimated low bias due to surrogate recovery.
Tetrachloroethene action level: 5 µg/L=0.005 mg/L

Figure 1
Tetrachloroethene Results

2013-09-09 R:\State\TCEQ\AIRS\CityOfKermit\GIS\MXDs\KermitSampleRes201306_2.mxd EA-Dallas jschwertz

Tables

	Sample Date	Bromodichloromethane (mg/L)	Bromoform (mg/L)	Chloroform (mg/L)	Dibromochloromethane (mg/L)	cis-1,2-Dichloroethylene (mg/L)	trans-1,2-Dichloroethylene (mg/L)	Methylene chloride (mg/L)	Tetrachloroethylene (mg/L)	Trichloroethylene (mg/L)	Vinyl chloride (mg/L)
SCDM Groundwater Pathway Benchmark (mg/L)	-	0.0011	NA	0.0022	NA	0.031	0.310	0.011	0.005	0.001	0.000017
TRRP Residential PCL $^{GW}GW_{ING}$ (mg/L)	-	0.015	0.12	0.24	0.011	0.070	0.100	0.005	0.005	0.005	0.002
GW-1	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	0.00254	<0.000370	<0.000330
GW-7	06/06/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
GW-9	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	**0.0233**	<0.000370	<0.000330
GW-10	06/04/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	**0.00577**	<0.000370	<0.000330
GW-11	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	0.00324	<0.000370	<0.000330
GW-12	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	0.00152	<0.000370	<0.000330
GW-13	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
GW-14	06/06/13	<0.000100	<0.000390	0.000653	<0.000430	<0.000370	<0.000240	<0.000360	0.000429 J	<0.000370	<0.000330
GW-16	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
GW-17	06/04/13	<0.000100	<0.000390	0.00119	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	**0.00139**	<0.000330
GW-18	06/04/13	<0.000100 UJL-SUR	<0.000390 UJL-SUR	0.00128 JL-SUR	<0.000430 UJL-SUR	<0.000370 UJL-SUR	<0.000240 UJL-SUR	<0.000360 UJL-SUR	<0.000300 UJL-SUR	**0.00146 JL-SUR**	<0.000330 UJL-SUR
GW-19	06/04/13	<0.000100	<0.000390	0.000648	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	0.00074	<0.000330
GW-20	06/04/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
GW-22	06/04/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	0.00039 J	<0.000370	<0.000330
GW-25	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
GW-26	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	0.000797	<0.000370	<0.000330
GW-27	06/06/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
GW-28	06/06/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
GW-98	06/04/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	**0.00568**	<0.000370	<0.000330
GW-99	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	0.00144	<0.000370	<0.000330
FB-1	06/04/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
FB-2	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
FB-3	06/06/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
Trip Blank	06/04/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
Trip Blank	06/05/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330
Trip Blank	06/06/13	<0.000100	<0.000390	<0.000290	<0.000430	<0.000370	<0.000240	<0.000360	<0.000300	<0.000370	<0.000330

NOTES:

Laboratory Applied Qualifiers
J - Estimated concentration
EA Applied Qualifiers
U - Result was not detected
J - Estimated concentration
L - Potential for low bias in the result
SUR - surrogate recovery outside acceptable limits

Appendix A

Field Data Sheets / Photographs

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1
Date: 4 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4616120 Sample ID: GW-19 Sample Time: 1150 Weather: 100°F, wind SW 10-15 mph 15% Humidity

Well owner/location/residence: City of Kermit well No. ~~1584~~ MK 4616120

Well Type: Public Supply

Sampling personnel: M Kelly, O. Valdez, K. Spong

Filtration system? (circle one) Y (N)

Water quality meter: UltraMeter II, LaMotte 2020 we

Start purge time: 1124

Casing Diam.:

End purge time: 1149

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): (Wellhead tap) In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)			
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1129	26.4°	7.15	2.21		138	-0.10	1.39		Bad MK ~~Conductivity~~ Readings, cell not full
1134	23.0°	7.23	768.3		116	-0.07	530.6		
1139	22.6°	7.27	770.0		104	0.14	531.9		1) Stable
1142	22.4	7.30	769.5		99	0.59	532.2		2) Stable
1145	22.3	7.33	771.1		95	0.01	532.5		3) Stable

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: M Kelly

31.00010

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1

Date: 4 July 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4616102 Sample ID: SW-18 Sample Time: 1240 Weather: 102°F wind west ~10mph

Well owner/location/residence: C. of Kermit well id# 4616 102

Well Type: Public Supply Sampling personnel: M Kelly, O Valdez, K Sprva

Filtration system? (circle one) Y (N) Water quality meter: Ultra Meter II, La Motte 2220

Start purge time: 1204 Casing Diam.:

End purge time: ~~1219~~ 1238 Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): (Wellhead tap) In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	ppm		
Time	Temp (°C)	pH 7.47	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1220	28.5	~~908~~	908.1		102	0.06	623.8		Full 15
1225	27.8	7.51	908.5		97	0.83	623.8		
1230	27.9	7.51	906.8		97	0.81	622.1		✓1
1233	27.9	7.48	907.3		96	0.64	623.0		✓2
1236	27.7	7.47	907.3		96	0.78	622.7		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: M Kelly

31.00011

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1
Date: 4 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4616101 Sample ID: GW-17 Sample Time: 1323 Weather: 106°F wind SW 10-15 mph

Well owner/location/residence: C of Kermit

Well Type: Public Supply

Filtration system? (circle one) Y (N)

Start purge time: 1251

End purge time: 1320

Sampling personnel: M Kelly, O Valdez, K Spera

Water quality meter: Ultrameter, LaMotte 2020 We

Casing Diam.:

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): Wellhead tap In-line House tap

	+/- 0.5°C	+/- 0.5 pH	+/- 10%	+/- 0.3 mg/L	+/- 10 mV	+/- 10% (>10 NTU)	ppm		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1259	24.0	7.46	898.6		119	0.07	621.8		
1304	23.2	7.43	900.7		119	4.51	624.7		
1309	23.1 ✓	7.46 ✓	900.5 ✓		120	8.08	625.4		✓1
1314	22.8 ✓	7.44 ✓	900.6 ✓		120	7.80	626.6		✓2
1317	22.7	7.42	902.4 ✓		120	8.19	628.3		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: Mark Kelly

31.00012

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1

Date: 4 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4616128 Sample ID: GW-20 Sample Time: 1405 Weather: 100°F, wind NW ~10 mph

Well owner/location/residence: City of Kermit

Well Type: Public Supply - Active

Sampling personnel: M Kelly, O. Valdez, R. Spera

Filtration system? (circle one) Y (N)

Water quality meter: Ultra Meter II, LaMotte 2220

Start purge time: 1336

Casing Diam.:

End purge time: 1401

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): (Wellhead tap) In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	ppm		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1342	24.9	7.65	533.3		136	0.13	360.1		
1347	23.7	7.54	531.2		133	2.10	360.3		x
1352	23.4	7.52	535.6		132	6.07	363.6		✓1
1357	23.2	7.48	535.9		130	7.27	364.1		✓2
1400	23.1	7.49	536.3		127	8.30	364.2		

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: M Kelly

31.00013

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1

Date: 4 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 1584** Sample ID: GW-22 Sample Time: 1450 Weather: 106°F; wind NW ~10mph

Well owner/location/residence: City of Kermit ~~Active~~

Well Type: Public Supply - Active

Sampling personnel: MKelly, O Valdez, K Speng

Filtration system? (circle one) Y (N)

Water quality meter: UltraMeter II; LaMotte 2220

Start purge time: 1421

Casing Diam.:

End purge time: 1447

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): (Wellhead tap) In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	ppm		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1426	24.8	7.55	490.5		131	17.6	330.6		
1431	23.3*	7.53	475.5		129	2.59	321.6		
1436	22.6*	7.56	462.7		129	4.28	313.6		
1441	22.5	7.51	459.6		129	4.93	311.5		✓1
1444	22.4	7.49	458.3		127	5.72	310.8		✓2
1447									

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: Mark Kelly

31.00014

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1
Date: 4 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4616131 Sample ID: GW-10 Sample Time: 1540 Weather: 106°F wind NW ~5mph

Well owner/location/residence: City of Kermit.

Well Type: Public Supply

Filtration system? (circle one) Y / N

Start purge time: 1501

End purge time: 1538

Sampling personnel: M Kelly, O Valdez, R Spera

Water quality meter: Ultra Meter II, LaMotte

Casing Diam.:

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): Wellhead tap In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	ppm		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1518	25.1	7.49	539.6		139	0.19	364.5		
1523	23.6 x	7.52	542.8		124	1.81	368.2		x
1528	23.1	7.51	543.7		121	3.42	369.4		✓1
1533	23.0	7.49	544.3		116	4.97	370.0		✓2
1536	22.8	7.50	544.4		113	4.92	370.5		✓3
								1520	collect Field Blank FB-1
								1530	collect Duplicate GW-98

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: Mark Kelly

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1

Date: ~~6~~ 5 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4616140 Sample ID: GW-16 Sample Time: 0922 Weather: 85°F, wind SE @ ~5mph

Well owner/location/residence: (b) (6) [redacted]

Well Type: Private

Sampling personnel: McKelly, O. Valdez, K Spera

Filtration system? (circle one) Y (N)

Water quality meter: Ultra meter II, LaMotte 2220

Start purge time: 7:00am (Filling pool)

Casing Diam.:

End purge time: 0920

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): Wellhead tap (In-line) House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	ppm		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
0902	21.9	7.70	617.8		145	0.19	424.9		well running / Filling pool since ~9am
0907	21.8	7.53	618.2		148	2.16	424.6		✓1
0912	21.8	7.53	618.4		150	0.76	424.7		✓2
0917	21.8	7.50	617.1		152	1.12	423.6		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: Mark Kelly

31.00016

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1
Date: 5 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4616126 Sample ID: SW-25 Sample Time: 1030 Weather: 92°F, wind NW ~5 mph

Well owner/location/residence: Rapid Transport 1230 S. Hwy 18

Well Type: Commercial/ Private Sampling personnel: MKelly, O. Valdez, K Spera

Filtration system? (circle one) Y (N) Water quality meter: Ultra Meter II, LaMotte 2020

Start purge time: 0955 (well off for ~2 days) Casing Diam.:

End purge time: 1029 Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate) (Wellhead tap) In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1010	23.1	7.29	878.5		151	0.09	609.1		
1015	22.2	7.40	885.3		120	0.15	615.7		
1020	22.2	7.36	879.8		110	0.21	611.7		✓1
1025	22.2	7.36	889.4		105	0.19	619.7		✓2
1028	22.2	7.34	891.5		101	0.02	621.7		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: Mark Kelly

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1
Date: 5 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 1583 Sample ID: GW-9 Sample Time: 1123 Weather: 99°F; Wind NW ~10mph

Well owner/location/residence: C. of Kermit

Well Type: Public Supply (offline @least 4 years) Sampling personnel: M Kelly, O. Valdez, K. Spera

Filtration system? (circle one) Y (N) Water quality meter: Ultra Meter II, LaMotte 2020

Start purge time: ~~1033~~ 1045 Casing Diam.:

End purge time: Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): Wellhead tap In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1103	24.0	7.76	394.4		94	4.53	264.1		
1108	23.1	7.81	370.2		42	2.63	247.7		x
1113	22.6	7.78	369.0		26	2.38	246.8		✓1
1118	22.5	7.74	371.2		18	2.57	248.4		✓2
1121	22.3	7.72	372.1		15	2.79	249.3		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: Mark Kelly

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1
Date: 5 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: _____ Sample ID: GW-1 Sample Time: 1202 Weather: 99°F, wind NW ~10mph

Well owner/location/residence: City of Kermit S. Ave A + East Bryan St. (not on map)

Well Type: Public Supply Sampling personnel: M Kelly, O Valdez, K Spera

Filtration system? (circle one) Y N Water quality meter: ~~Water~~ Ultrameter II, LaMotte 2220

Start purge time: 1105 (L. Fruge, cofK) Casing Diam.:

End purge time: 1200 Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): Wellhead tap In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1138	23.5	7.51	647.3		84	1.31	442.5		
1143	22.8	7.52	643.9		80	1.08	440.9		
1148	22.4	7.49	642.8		75	1.05	441.3		✓1
1153	22.2	7.47	641.4		69	1.56	440.5		✓2
1158	22.2	7.50	641.3		72	2.14	440.2		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: [signature]

31.00019

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1

Date: 5 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4616130 Sample ID: GW-12 Sample Time: 1240 Weather: 100°F, wind NE @ ~10mph

Well owner/location/residence: City of Kermit Walton (Park) inside

Well Type: Public Supply Sampling personnel: M Kelly, O Valdez, K Spera

Filtration system? (circle one) Y (N) Water quality meter: Ultrameter II, LaMotte 2020

Start purge time: 1149 (L. Fruge, C of K) Casing Diam.:

End purge time: Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): Wellhead tap In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1221	25.4	7.38	1,349		33	3.47	949.0		
1226	24.2	7.34	1,337		18	2.68	942.7		
1231	23.7	7.33	1,325		11	5.05	934.5		✓1
1236	23.4	7.33	1,330		9	4.06	938.4		✓2
1239	23.3	7.31	1,335		7	2.96	943.3		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Duplicate ☆ GW-99 1300

Recorded By: [signature]

31.00020

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1

Date: 5 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 3043 Sample ID: GW-13 Sample Time: 1330 Weather: 102°F Wind NE~10mph

Well owner/location/residence: City of Kermit Winkler Co. Park Water Park @ Kermit

Well Type: Public Supply Sampling personnel: M Kelly, O Valdez, K Spera

Filtration system? (circle one) Y (N) Water quality meter: Ultrameter II, LaMotte 12220

Start purge time: 1300 Casing Diam.:

End purge time: ~~12m~~ 1325 Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): Wellhead tap In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1305	22.9	7.42	1438		99	0.07	1021		
1310	22.2	7.39	1,443		99	0.09	1025		
1315	22.0	7.40	1,444		100	0.05	1,028		✓1
1320	21.8	7.35	1,443		101	0.07	1,027		✓2
1323	21.9	7.36	1,445		101	0.11	1,028		

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: [signature]

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1

Date: 5 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4611629 Sample ID: GW-11 Sample Time: 1353 Weather: 102°F, wind NE ~10mph, ~10% humidity

Well owner/location/residence: City of Kermit (Walton Park – outside)

Well Type: Public Supply Sampling personnel: M Kelly, O. Valdez, K. Spera

Filtration system? (circle one) Y (N) Water quality meter: Ultrameter II, K Spera

Start purge time: 1310 (L. Fruge, Cat K) Casing Diam.:

End purge time: 1352 Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): Wellhead tap In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1342	23.1	7.68	450.2		111	88	304.1		Reddish tint; Red clay in water
1347	22.2 x	7.60	448.7		109	68	303.5		(well has been bailed
1352	22.2	7.61	449.4		111	610 AM	304.1		recently; well hasn't
1357									been used in several
								tank	months).
NOTE: Due to 'dirty' (Red clay) water being pumped to ~~tank~~ tank for									
public supply, sample well prior to stabilization									
as directed by TCEQ in field (Omar Valdez).									AK

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: [signature]

31.00022

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1

Date: 5 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: _____ Sample ID: GW-26 Sample Time: 1455 Weather: 102°F wind NE 5-10mph

Well owner/location/residence: (b) (6) [redacted]

Well Type: Private/Domestic

Sampling personnel: M Kelly, O Valdez, K Spera

Filtration system? (circle one) Y (N)

Water quality meter: Ultra Meter II, LaMotte 12220

Start purge time: 1417

Casing Diam.:

End purge time: 1452

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): (Wellhead tap) In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1432	25.1	6.99	1,308		152	0.42	919.9		
1437	23.7	6.88	1,311		147	0.09	924.9		x
1442	23.4	6.88	1,312		145	1.65	926.5		✓1
1447	23.2	6.86	1,313		144	1.45	927.7		✓2
1450	23.0	6.84	1,312		144	1.56	927.2		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: Mark Kelly

31.00023

FB-2
1440

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1

Date: 6 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: GW-27 Sample ID: _____ Sample Time: 1115 Weather: 75°F Wind NE 5-10mph

Well owner/location/residence: Kermit ISD Elementary School (E.St. Hwy 115 (Austin St) + N. East Ave./Dallas Ave) not on list / map

Well Type: Public (School) Supply

Sampling personnel: M Kelly, O Valdez, K Spera

Filtration system? (circle one) Y (N)

Water quality meter: Ultra Meter II, Lamotte 2020

Start purge time: 1040

Casing Diam.:

End purge time: 1114

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): (Wellhead tap) In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1055	21.4	6.40	2,491		187	0.15	2,057		
1100	21.3	6.96	2,490		166	0.19	2,056		~~X1~~
1105	21.3	7.08	2,490		151	0.08	2,055		✓~~2~~ 1
1110	21.3	7.11	2,489		141	0.10	2,055		✓2
1113	21.3	7.13	2,489		137	0.14	2,055		✓3
Behind school (off Dallas Ave) near water tank. (In grass, east side of drive)									

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

FB-3
1050

MS/MSD (GW-27)

Recorded By: Mark Kelly

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1
Date: 6 June 2013

WATER WELL SAMPLING DATA SHEET
TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: GW-28 Sample ID: GW-28 Sample Time: 1201 Weather: 79°F Wind SE 5-10mph

Well owner/location/residence: Kermit ISD High School (Baseball Field (near Right Field Fence corner)

Well Type: Public Supply

Sampling personnel: MKelly, OValdez, KSpera

Filtration system? (circle one) Y (N)

Water quality meter: Ultrameter II, LaMotte 2220

Start purge time: already Running (leaking from union

Casing Diam.:

End purge time: 1200

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): (Wellhead tap) In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1144	21.6	7.66	401.6		134	0.04	299.5		
1149	21.6	7.45	400.8		128	0.00	298.9		✓1
1154	21.6	7.43	400.8		126	0.23	299.1		✓2
1159	21.6	7.31	401.1		128	0.22	299.3		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: [signature]

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1
Date: 6 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: 4616219 Sample ID: GW-14 Sample Time: 1240 Weather: 81°F, Cast ~10 mph

Well owner/location/residence: Kermit ISD near Athletic track by Jr. High + Parking Lot

Well Type: Public Supply

Sampling personnel: M. Kelly, O Valdez, K Spera

Filtration system? (circle one) Y (N)

Water quality meter: Ultra Meter II, LaMotte 2020

Start purge time: Running @ arrival

Casing Diam.:

End purge time: 1237

Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): (Wellhead tap) In-line House tap

	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1220	21.4	7.29	768.2		–	1.32	588.6		
1225	21.2	7.28	767.9		141	1.15	586.9		✓1
1230	21.2	7.27	769.4		139	1.01	587.6		✓2
1235	21.2	7.27	769.8		137	1.17	589.0		✓3

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: Mark Kelly

31.00026

City of Kermit PWS
Kermit, Winkler Co., TX

Sheet 1 of 1
Date: 6 June 2013

WATER WELL SAMPLING DATA SHEET

TCEQ - SUPERFUND SITE DISCOVERY AND ASSESSMENT PROGRAM

Well ID: _____ Sample ID: GW-7 Sample Time: 1330 Weather: 85°F, NE @ ~10mph

Well owner/location/residence: (b) (6) [redacted] (not on list/well) Corner (b) (6) [redacted] (NE Corner)

Well Type: Private Sampling personnel: M Kelly, K Sperd, O Valdez

Filtration system? (circle one) Y (N) Water quality meter: Ultrachecker II, Lachatte 2220

Start purge time: 1255 Casing Diam.:

End purge time: 1329 Screen interval:

Pump depth setting:

Sample collected at (circle as appropriate): Wellhead tap (In-line) House tap

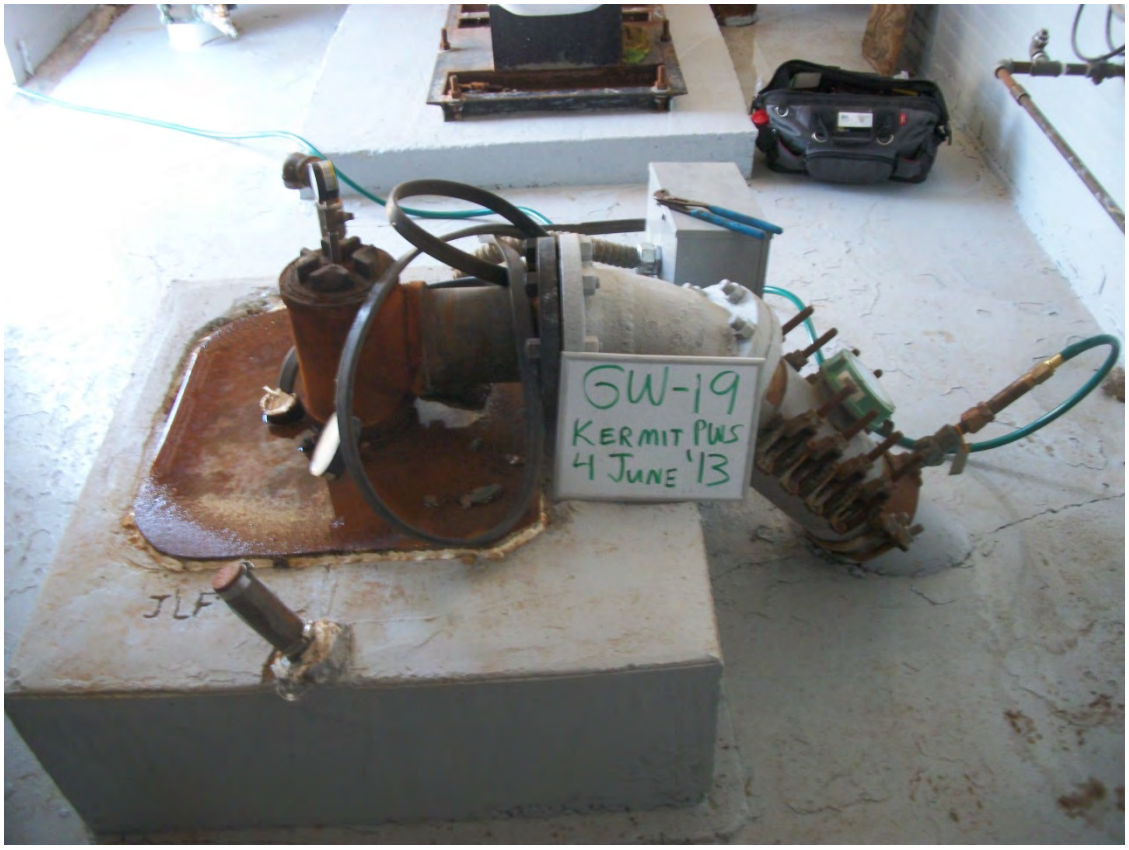
	+ / - 0.5°C	+ / - 0.5 pH	+ / - 10%	+ / - 0.3 mg/L	+ / - 10 mV	+ / -10% (>10 NTU)	(ppm)		
Time	Temp (°C)	pH	Conductivity (µS/cm) or (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	TDS		Additional Comments
1310	23.5	7.58	349.0		145	0.27	256.8		
1315	22.9 x	7.58	333.6		138	0.26	244.9		x
1320	22.8	7.57	326.6		135	0.18	240.0		√1
1325	22.4	7.55	327.1		134	0.14	240.0		
1328	22.3	7.53	327.3		133	0.20	240.0		

Purge well at least 15 minutes.
Record parameters at 5 minute intervals until three (3) consecutive measurements are consisitent within specific tolerance limits.
If parameters not stable after 3 readings, continue recording at 3 minute intervals up to a maximum of 5 succesive readings.
If parameters not stabilized, make note and collect sample.

Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In ex. stabilization has not occurred.

Recorded By: Mark Kelly

31.00027



Sampling location for sample GW-19 (4 June 2013)

Sampling location for sample GW-18 (4 June 2013)

Sampling location for sample GW-17 (4 June 2013)

Sampling location for sample GW-20 (4 June 2013)

Sampling location for sample GW-22 (4 June 2013)

Sampling location for sample GW-10 (4 June 2013)

Sampling location for sample GW-25 (5 June 2013)

Sampling location for sample GW-26 (5 June 2013)

Sampling location for sample GW-16 (5 June 2013)

Sampling location for sample GW-9 (5 June 2013)

Sampling location for sample GW-1 (5 June 2013)

Sampling location for sample GW-12 (5 June 2013)

Sampling location for sample GW-13 (5 June 2013)

Sampling location for sample GW-11 (5 June 2013)

Sampling location for sample GW-28 (6 June 2013)

Sampling location for sample GW-07 (6 June 2013)

Sampling location for sample GW-27 (6 June 2013)

Sampling location for sample GW-14 (6 June 2013)

Appendix B

Analytical Data Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-91015-1
TestAmerica Sample Delivery Group: 68091015-1
Client Project/Site: 1486519/Kermit PSW

For:
EA Engineering, Science, and Technology
405 S. Highway 121 bypass
Building C
Suite 100
Lewisville, Texas 75067

Attn: Kimberly Wallace-Wymore

Authorized for release by:
6/21/2013 3:51:04 PM

Sheila Hoffman, Project Manager I
sheila.hoffman@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Receipt Checklists 35
Certification Summary 36

Job ID: 680-91015-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: EA Engineering, Science, and Technology

Project: 1486519/Kermit PSW

Report Number: 680-91015-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 06/05/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.2 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GW-19 (680-91015-1), GW-18 (680-91015-2), GW-17 (680-91015-3), GW-20 (680-91015-4), GW-22 (680-91015-5), GW-10 (680-91015-6), GW-98 (680-91015-7), FB-1 (680-91015-8) and Trip Blank (680-91015-9) were analyzed for Volatile organic Compounds (GC-MS) in accordance with EPA Method 524.2. The samples were analyzed on 06/15/2013 and 06/18/2013.

1,2-Dichlorobenzene-d4 failed the surrogate recovery criteria low for GW-18 (680-91015-2). Re-analysis was performed with concurring results. The original analysis has been reported.

Chloroethane failed the recovery criteria high for LCSD 680-281026/4. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

Sample Summary

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-91015-1	GW-19	Water	06/04/13 11:50	06/05/13 10:01
680-91015-2	GW-18	Water	06/04/13 12:40	06/05/13 10:01
680-91015-3	GW-17	Water	06/04/13 13:23	06/05/13 10:01
680-91015-4	GW-20	Water	06/04/13 14:05	06/05/13 10:01
680-91015-5	GW-22	Water	06/04/13 14:50	06/05/13 10:01
680-91015-6	GW-10	Water	06/04/13 15:40	06/05/13 10:01
680-91015-7	GW-98	Water	06/04/13 15:30	06/05/13 10:01
680-91015-8	FB-1	Water	06/04/13 15:20	06/05/13 10:01
680-91015-9	Trip Blank	Water	06/04/13 00:00	06/05/13 10:01

Method Summary

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL SAV

Protocol References:

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
*	LCS or LCSD exceeds the control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Client Sample ID: GW-19

Date Collected: 06/04/13 11:50
Date Received: 06/05/13 10:01

Lab Sample ID: 680-91015-1

Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/15/13 17:12	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:12	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/15/13 17:12	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/15/13 17:12	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/15/13 17:12	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/15/13 17:12	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 17:12	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/15/13 17:12	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/15/13 17:12	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/15/13 17:12	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/15/13 17:12	1
Chloroform	**0.000648**		0.000500	0.000290	mg/L			06/15/13 17:12	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/15/13 17:12	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:12	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/15/13 17:12	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 17:12	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/15/13 17:12	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/15/13 17:12	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/15/13 17:12	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:12	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 17:12	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:12	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/15/13 17:12	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/15/13 17:12	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:12	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/15/13 17:12	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/15/13 17:12	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/15/13 17:12	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/15/13 17:12	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/15/13 17:12	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/15/13 17:12	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/15/13 17:12	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/15/13 17:12	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/15/13 17:12	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/15/13 17:12	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/15/13 17:12	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/15/13 17:12	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/15/13 17:12	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 17:12	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/15/13 17:12	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/15/13 17:12	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/15/13 17:12	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:12	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:12	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/15/13 17:12	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 17:12	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/15/13 17:12	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 17:12	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/15/13 17:12	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Client Sample ID: GW-19

Lab Sample ID: 680-91015-1
Date Collected: 06/04/13 11:50
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:12	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/15/13 17:12	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 17:12	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 17:12	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 17:12	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:12	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 17:12	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 17:12	1
Trichloroethene	**0.000740**		0.000500	0.000370	mg/L			06/15/13 17:12	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 17:12	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:12	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:12	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 17:12	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*70 - 130*		*06/15/13 17:12*	*1*
1,2-Dichlorobenzene-d4	*75*		*70 - 130*		*06/15/13 17:12*	*1*

Client Sample ID: GW-18

Lab Sample ID: 680-91015-2
Date Collected: 06/04/13 12:40
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/15/13 17:39	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:39	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/15/13 17:39	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/15/13 17:39	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/15/13 17:39	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/15/13 17:39	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 17:39	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/15/13 17:39	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/15/13 17:39	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/15/13 17:39	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/15/13 17:39	1
Chloroform	**0.00128**		0.000500	0.000290	mg/L			06/15/13 17:39	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/15/13 17:39	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:39	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/15/13 17:39	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 17:39	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/15/13 17:39	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/15/13 17:39	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/15/13 17:39	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:39	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 17:39	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:39	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/15/13 17:39	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/15/13 17:39	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:39	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Client Sample ID: GW-18

Lab Sample ID: 680-91015-2
Date Collected: 06/04/13 12:40
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/15/13 17:39	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/15/13 17:39	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/15/13 17:39	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/15/13 17:39	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/15/13 17:39	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/15/13 17:39	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/15/13 17:39	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/15/13 17:39	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/15/13 17:39	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/15/13 17:39	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/15/13 17:39	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/15/13 17:39	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/15/13 17:39	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 17:39	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/15/13 17:39	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/15/13 17:39	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/15/13 17:39	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:39	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:39	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/15/13 17:39	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 17:39	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/15/13 17:39	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 17:39	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/15/13 17:39	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:39	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/15/13 17:39	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 17:39	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 17:39	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 17:39	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:39	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 17:39	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 17:39	1
Trichloroethene	**0.00146**		0.000500	0.000370	mg/L			06/15/13 17:39	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 17:39	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:39	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:39	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 17:39	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*70 - 130*		*06/15/13 17:39*	*1*
1,2-Dichlorobenzene-d4	*69*	*X*	*70 - 130*		*06/15/13 17:39*	*1*

Client Sample ID: GW-17

Lab Sample ID: 680-91015-3
Date Collected: 06/04/13 13:23
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/15/13 18:09	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Client Sample ID: GW-17

Date Collected: 06/04/13 13:23
Date Received: 06/05/13 10:01

Lab Sample ID: 680-91015-3

Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:09	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/15/13 18:09	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/15/13 18:09	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/15/13 18:09	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/15/13 18:09	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 18:09	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/15/13 18:09	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/15/13 18:09	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/15/13 18:09	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/15/13 18:09	1
Chloroform	**0.00119**		0.000500	0.000290	mg/L			06/15/13 18:09	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/15/13 18:09	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:09	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/15/13 18:09	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 18:09	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/15/13 18:09	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/15/13 18:09	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/15/13 18:09	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:09	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 18:09	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:09	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/15/13 18:09	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/15/13 18:09	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:09	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/15/13 18:09	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/15/13 18:09	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/15/13 18:09	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/15/13 18:09	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/15/13 18:09	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/15/13 18:09	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/15/13 18:09	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/15/13 18:09	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/15/13 18:09	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/15/13 18:09	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/15/13 18:09	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/15/13 18:09	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/15/13 18:09	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 18:09	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/15/13 18:09	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/15/13 18:09	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/15/13 18:09	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:09	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:09	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/15/13 18:09	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 18:09	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/15/13 18:09	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 18:09	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/15/13 18:09	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:09	1

Client Sample ID: GW-17

Lab Sample ID: 680-91015-3

Date Collected: 06/04/13 13:23

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/15/13 18:09	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 18:09	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 18:09	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 18:09	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:09	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 18:09	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 18:09	1
Trichloroethene	**0.00139**		0.000500	0.000370	mg/L			06/15/13 18:09	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 18:09	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:09	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:09	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 18:09	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*70 - 130*		*06/15/13 18:09*	*1*
1,2-Dichlorobenzene-d4	*73*		*70 - 130*		*06/15/13 18:09*	*1*

Client Sample ID: GW-20

Lab Sample ID: 680-91015-4

Date Collected: 06/04/13 14:05

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/15/13 18:36	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:36	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/15/13 18:36	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/15/13 18:36	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/15/13 18:36	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/15/13 18:36	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 18:36	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/15/13 18:36	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/15/13 18:36	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/15/13 18:36	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/15/13 18:36	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/15/13 18:36	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/15/13 18:36	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:36	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/15/13 18:36	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 18:36	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/15/13 18:36	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/15/13 18:36	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/15/13 18:36	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:36	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 18:36	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:36	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/15/13 18:36	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/15/13 18:36	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:36	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/15/13 18:36	1

Client Sample ID: GW-20

Lab Sample ID: 680-91015-4

Date Collected: 06/04/13 14:05

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/15/13 18:36	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/15/13 18:36	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/15/13 18:36	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/15/13 18:36	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/15/13 18:36	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/15/13 18:36	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/15/13 18:36	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/15/13 18:36	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/15/13 18:36	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/15/13 18:36	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/15/13 18:36	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/15/13 18:36	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 18:36	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/15/13 18:36	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/15/13 18:36	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/15/13 18:36	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:36	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:36	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/15/13 18:36	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 18:36	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/15/13 18:36	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 18:36	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/15/13 18:36	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:36	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/15/13 18:36	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 18:36	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 18:36	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 18:36	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:36	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 18:36	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 18:36	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 18:36	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 18:36	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 18:36	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 18:36	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 18:36	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*70 - 130*		*06/15/13 18:36*	*1*
1,2-Dichlorobenzene-d4	*71*		*70 - 130*		*06/15/13 18:36*	*1*

Client Sample ID: GW-22

Lab Sample ID: 680-91015-5

Date Collected: 06/04/13 14:50

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 16:17	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:17	1

Client Sample ID: GW-22

Date Collected: 06/04/13 14:50
Date Received: 06/05/13 10:01

Lab Sample ID: 680-91015-5

Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 16:17	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 16:17	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 16:17	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 16:17	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 16:17	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 16:17	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 16:17	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 16:17	1
Chloroethane	<0.000330	*	0.00100	0.000330	mg/L			06/18/13 16:17	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 16:17	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 16:17	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:17	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 16:17	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 16:17	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 16:17	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 16:17	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 16:17	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:17	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 16:17	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:17	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 16:17	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 16:17	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:17	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 16:17	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 16:17	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 16:17	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 16:17	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 16:17	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 16:17	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 16:17	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 16:17	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 16:17	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 16:17	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 16:17	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 16:17	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 16:17	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 16:17	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 16:17	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 16:17	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 16:17	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:17	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:17	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 16:17	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 16:17	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 16:17	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 16:17	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 16:17	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:17	1
Tetrachloroethene	**0.000390**	**J**	0.000500	0.000300	mg/L			06/18/13 16:17	1

Client Sample ID: GW-22

Lab Sample ID: 680-91015-5

Date Collected: 06/04/13 14:50

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 16:17	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 16:17	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 16:17	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:17	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 16:17	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 16:17	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 16:17	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 16:17	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:17	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:17	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 16:17	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*70 - 130*		*06/18/13 16:17*	*1*
1,2-Dichlorobenzene-d4	*78*		*70 - 130*		*06/18/13 16:17*	*1*

Client Sample ID: GW-10

Lab Sample ID: 680-91015-6

Date Collected: 06/04/13 15:40

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/15/13 19:30	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:30	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/15/13 19:30	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/15/13 19:30	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/15/13 19:30	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/15/13 19:30	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 19:30	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/15/13 19:30	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/15/13 19:30	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/15/13 19:30	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/15/13 19:30	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/15/13 19:30	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/15/13 19:30	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:30	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/15/13 19:30	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 19:30	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/15/13 19:30	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/15/13 19:30	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/15/13 19:30	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:30	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 19:30	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:30	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/15/13 19:30	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/15/13 19:30	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:30	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/15/13 19:30	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/15/13 19:30	1

Client Sample ID: GW-10

Lab Sample ID: 680-91015-6

Date Collected: 06/04/13 15:40
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/15/13 19:30	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/15/13 19:30	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/15/13 19:30	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/15/13 19:30	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/15/13 19:30	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/15/13 19:30	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/15/13 19:30	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/15/13 19:30	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/15/13 19:30	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/15/13 19:30	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/15/13 19:30	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 19:30	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/15/13 19:30	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/15/13 19:30	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/15/13 19:30	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:30	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:30	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/15/13 19:30	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 19:30	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/15/13 19:30	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 19:30	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/15/13 19:30	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:30	1
Tetrachloroethene	**0.00577**		0.000500	0.000300	mg/L			06/15/13 19:30	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 19:30	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 19:30	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 19:30	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:30	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 19:30	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 19:30	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 19:30	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 19:30	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:30	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:30	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 19:30	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*70 - 130*		*06/15/13 19:30*	*1*
1,2-Dichlorobenzene-d4	*78*		*70 - 130*		*06/15/13 19:30*	*1*

Client Sample ID: GW-98

Lab Sample ID: 680-91015-7

Date Collected: 06/04/13 15:30
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/15/13 19:57	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:57	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/15/13 19:57	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Client Sample ID: GW-98

Date Collected: 06/04/13 15:30
Date Received: 06/05/13 10:01

Lab Sample ID: 680-91015-7

Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/15/13 19:57	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/15/13 19:57	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/15/13 19:57	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 19:57	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/15/13 19:57	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/15/13 19:57	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/15/13 19:57	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/15/13 19:57	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/15/13 19:57	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/15/13 19:57	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:57	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/15/13 19:57	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 19:57	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/15/13 19:57	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/15/13 19:57	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/15/13 19:57	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:57	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 19:57	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:57	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/15/13 19:57	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/15/13 19:57	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:57	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/15/13 19:57	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/15/13 19:57	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/15/13 19:57	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/15/13 19:57	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/15/13 19:57	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/15/13 19:57	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/15/13 19:57	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/15/13 19:57	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/15/13 19:57	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/15/13 19:57	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/15/13 19:57	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/15/13 19:57	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/15/13 19:57	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 19:57	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/15/13 19:57	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/15/13 19:57	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/15/13 19:57	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:57	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:57	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/15/13 19:57	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 19:57	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/15/13 19:57	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 19:57	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/15/13 19:57	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:57	1
Tetrachloroethene	**0.00568**		0.000500	0.000300	mg/L			06/15/13 19:57	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 19:57	1

Client Sample ID: GW-98

Lab Sample ID: 680-91015-7

Date Collected: 06/04/13 15:30
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 19:57	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 19:57	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:57	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 19:57	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 19:57	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 19:57	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 19:57	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 19:57	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 19:57	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 19:57	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*70 - 130*		*06/15/13 19:57*	*1*
1,2-Dichlorobenzene-d4	*87*		*70 - 130*		*06/15/13 19:57*	*1*

Client Sample ID: FB-1

Lab Sample ID: 680-91015-8

Date Collected: 06/04/13 15:20
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/15/13 16:45	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:45	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/15/13 16:45	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/15/13 16:45	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/15/13 16:45	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/15/13 16:45	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 16:45	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/15/13 16:45	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/15/13 16:45	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/15/13 16:45	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/15/13 16:45	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/15/13 16:45	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/15/13 16:45	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:45	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/15/13 16:45	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 16:45	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/15/13 16:45	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/15/13 16:45	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/15/13 16:45	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:45	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 16:45	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:45	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/15/13 16:45	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/15/13 16:45	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:45	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/15/13 16:45	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/15/13 16:45	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/15/13 16:45	1

Client Sample ID: FB-1

Lab Sample ID: 680-91015-8

Date Collected: 06/04/13 15:20

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/15/13 16:45	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/15/13 16:45	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/15/13 16:45	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/15/13 16:45	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/15/13 16:45	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/15/13 16:45	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/15/13 16:45	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/15/13 16:45	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/15/13 16:45	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/15/13 16:45	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 16:45	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/15/13 16:45	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/15/13 16:45	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/15/13 16:45	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:45	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:45	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/15/13 16:45	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 16:45	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/15/13 16:45	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 16:45	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/15/13 16:45	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:45	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/15/13 16:45	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 16:45	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 16:45	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 16:45	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:45	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 16:45	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 16:45	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 16:45	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 16:45	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:45	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:45	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 16:45	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 16:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*70 - 130*		*06/15/13 16:45*	*1*
1,2-Dichlorobenzene-d4	*81*		*70 - 130*		*06/15/13 16:45*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 680-91015-9

Date Collected: 06/04/13 00:00

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/15/13 16:18	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:18	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/15/13 16:18	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/15/13 16:18	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-91015-9

Date Collected: 06/04/13 00:00
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/15/13 16:18	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/15/13 16:18	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 16:18	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/15/13 16:18	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/15/13 16:18	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/15/13 16:18	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/15/13 16:18	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/15/13 16:18	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/15/13 16:18	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:18	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/15/13 16:18	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 16:18	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/15/13 16:18	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/15/13 16:18	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/15/13 16:18	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:18	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 16:18	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:18	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/15/13 16:18	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/15/13 16:18	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:18	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/15/13 16:18	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/15/13 16:18	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/15/13 16:18	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/15/13 16:18	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/15/13 16:18	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/15/13 16:18	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/15/13 16:18	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/15/13 16:18	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/15/13 16:18	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/15/13 16:18	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/15/13 16:18	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/15/13 16:18	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/15/13 16:18	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 16:18	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/15/13 16:18	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/15/13 16:18	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/15/13 16:18	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:18	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:18	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/15/13 16:18	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 16:18	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/15/13 16:18	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 16:18	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/15/13 16:18	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:18	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/15/13 16:18	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 16:18	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 16:18	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-91015-9

Date Collected: 06/04/13 00:00
Matrix: Water
Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 16:18	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:18	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 16:18	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 16:18	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 16:18	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 16:18	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 16:18	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 16:18	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 16:18	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*70 - 130*		*06/15/13 16:18*	*1*
1,2-Dichlorobenzene-d4	*81*		*70 - 130*		*06/15/13 16:18*	*1*

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB (70-130)	12DCB (70-130)						
680-91015-1	GW-19	84	75						
680-91015-2	GW-18	82	69 X						
680-91015-3	GW-17	82	73						
680-91015-4	GW-20	85	71						
680-91015-5	GW-22	88	78						
680-91015-6	GW-10	84	78						
680-91015-7	GW-98	89	87						
680-91015-8	FB-1	88	81						
680-91015-9	Trip Blank	90	81						
LCS 680-280660/3	Lab Control Sample	103	104						
LCS 680-281026/3	Lab Control Sample	105	106						
LCSD 680-280660/4	Lab Control Sample Dup	101	103						
LCSD 680-281026/4	Lab Control Sample Dup	107	105						
MB 680-280660/6	Method Blank	90	80						
MB 680-281026/6	Method Blank	90	76						

Surrogate Legend

BFB = 4-Bromofluorobenzene

12DCB = 1,2-Dichlorobenzene-d4

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-280660/6
Matrix: Water
Analysis Batch: 280660

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/15/13 15:47	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 15:47	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/15/13 15:47	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/15/13 15:47	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/15/13 15:47	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/15/13 15:47	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 15:47	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/15/13 15:47	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/15/13 15:47	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/15/13 15:47	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/15/13 15:47	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/15/13 15:47	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/15/13 15:47	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/15/13 15:47	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/15/13 15:47	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 15:47	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/15/13 15:47	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/15/13 15:47	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/15/13 15:47	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 15:47	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 15:47	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 15:47	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/15/13 15:47	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/15/13 15:47	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/15/13 15:47	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/15/13 15:47	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/15/13 15:47	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/15/13 15:47	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/15/13 15:47	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/15/13 15:47	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/15/13 15:47	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/15/13 15:47	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/15/13 15:47	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/15/13 15:47	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/15/13 15:47	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/15/13 15:47	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/15/13 15:47	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/15/13 15:47	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/15/13 15:47	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/15/13 15:47	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/15/13 15:47	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/15/13 15:47	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 15:47	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 15:47	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/15/13 15:47	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 15:47	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/15/13 15:47	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/15/13 15:47	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-280660/6
Matrix: Water
Analysis Batch: 280660

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/15/13 15:47	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 15:47	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/15/13 15:47	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 15:47	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 15:47	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 15:47	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 15:47	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 15:47	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 15:47	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/15/13 15:47	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 15:47	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 15:47	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 15:47	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 15:47	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 15:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*70 - 130*		*06/15/13 15:47*	*1*
1,2-Dichlorobenzene-d4	*80*		*70 - 130*		*06/15/13 15:47*	*1*

Lab Sample ID: LCS 680-280660/3
Matrix: Water
Analysis Batch: 280660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0400	0.03482		mg/L		87	70 - 130
Benzene	0.0200	0.01881		mg/L		94	70 - 130
Bromobenzene	0.0200	0.01952		mg/L		98	70 - 130
Bromodichloromethane	0.0200	0.02003		mg/L		100	70 - 130
Bromoform	0.0200	0.01906		mg/L		95	70 - 130
Bromomethane	0.0200	0.01965		mg/L		98	70 - 130
2-Butanone (MEK)	0.0400	0.03617		mg/L		90	70 - 130
Carbon tetrachloride	0.0200	0.02064		mg/L		103	70 - 130
Chlorobenzene	0.0200	0.01907		mg/L		95	70 - 130
Chlorobromomethane	0.0200	0.01841		mg/L		92	70 - 130
Chloroethane	0.0200	0.02122		mg/L		106	70 - 130
Chloroform	0.0200	0.01907		mg/L		95	70 - 130
Chloromethane	0.0200	0.01734		mg/L		87	70 - 130
2-Chlorotoluene	0.0200	0.01978		mg/L		99	70 - 130
4-Chlorotoluene	0.0200	0.02027		mg/L		101	70 - 130
cis-1,2-Dichloroethene	0.0200	0.01896		mg/L		95	70 - 130
cis-1,3-Dichloropropene	0.0200	0.02049		mg/L		102	70 - 130
Dibromochloromethane	0.0200	0.01893		mg/L		95	70 - 130
1,2-Dibromo-3-Chloropropane	0.0200	0.01747		mg/L		87	70 - 130
1,2-Dichlorobenzene	0.0200	0.02008		mg/L		100	70 - 130
1,3-Dichlorobenzene	0.0200	0.02017		mg/L		101	70 - 130
1,4-Dichlorobenzene	0.0200	0.01812		mg/L		91	70 - 130
Dichlorodifluoromethane	0.0200	0.01800		mg/L		90	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-280660/3
Matrix: Water
Analysis Batch: 280660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0200	0.01928		mg/L		96	70 - 130
1,2-Dichloroethane	0.0200	0.01900		mg/L		95	70 - 130
1,1-Dichloroethene	0.0200	0.01897		mg/L		95	70 - 130
1,2-Dichloropropane	0.0200	0.01871		mg/L		94	70 - 130
1,3-Dichloropropane	0.0200	0.01910		mg/L		96	70 - 130
2,2-Dichloropropane	0.0200	0.02097		mg/L		105	70 - 130
1,1-Dichloropropene	0.0200	0.01919		mg/L		96	70 - 130
Ethylbenzene	0.0200	0.01970		mg/L		99	70 - 130
Ethylene Dibromide	0.0200	0.01924		mg/L		96	70 - 130
Freon 113	0.0160	0.01597		mg/L		100	70 - 130
Hexachlorobutadiene	0.0200	0.01790		mg/L		90	70 - 130
2-Hexanone	0.0400	0.03916		mg/L		98	70 - 130
Isopropylbenzene	0.0200	0.01960		mg/L		98	70 - 130
Methylene bromide	0.0200	0.01910		mg/L		95	70 - 130
Methylene Chloride	0.0200	0.01814		mg/L		91	70 - 130
4-Methyl-2-pentanone (MIBK)	0.0400	0.03819		mg/L		95	70 - 130
Methyl tert-butyl ether	0.0160	0.01546		mg/L		97	70 - 130
m-Xylene & p-Xylene	0.0400	0.03931		mg/L		98	70 - 130
Naphthalene	0.0200	0.01747		mg/L		87	70 - 130
n-Butylbenzene	0.0200	0.01931		mg/L		97	70 - 130
N-Propylbenzene	0.0200	0.02068		mg/L		103	70 - 130
o-Xylene	0.0200	0.01984		mg/L		99	70 - 130
sec-Butylbenzene	0.0200	0.01800		mg/L		90	70 - 130
Styrene	0.0200	0.02056		mg/L		103	70 - 130
tert-Butylbenzene	0.0200	0.01969		mg/L		98	70 - 130
1,1,1,2-Tetrachloroethane	0.0200	0.01866		mg/L		93	70 - 130
1,1,2,2-Tetrachloroethane	0.0200	0.01845		mg/L		92	70 - 130
Tetrachloroethene	0.0200	0.01929		mg/L		96	70 - 130
Toluene	0.0200	0.01924		mg/L		96	70 - 130
trans-1,2-Dichloroethene	0.0200	0.01853		mg/L		93	70 - 130
trans-1,3-Dichloropropene	0.0200	0.02018		mg/L		101	70 - 130
1,2,4-Trichlorobenzene	0.0200	0.01843		mg/L		92	70 - 130
1,1,1-Trichloroethane	0.0200	0.01964		mg/L		98	70 - 130
1,1,2-Trichloroethane	0.0200	0.01963		mg/L		98	70 - 130
Trichloroethene	0.0200	0.01966		mg/L		98	70 - 130
Trichlorofluoromethane	0.0200	0.01872		mg/L		94	70 - 130
1,2,3-Trichloropropane	0.0200	0.01849		mg/L		92	70 - 130
1,2,4-Trimethylbenzene	0.0200	0.01769		mg/L		88	70 - 130
1,3,5-Trimethylbenzene	0.0200	0.01839		mg/L		92	70 - 130
Vinyl chloride	0.0200	0.01878		mg/L		94	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*70 - 130*
1,2-Dichlorobenzene-d4	*104*		*70 - 130*

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-280660/4
Matrix: Water
Analysis Batch: 280660

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0400	0.03732		mg/L		93	70 - 130	7	30
Benzene	0.0200	0.01975		mg/L		99	70 - 130	5	30
Bromobenzene	0.0200	0.02021		mg/L		101	70 - 130	3	30
Bromodichloromethane	0.0200	0.02049		mg/L		102	70 - 130	2	30
Bromoform	0.0200	0.01973		mg/L		99	70 - 130	3	30
Bromomethane	0.0200	0.02298		mg/L		115	70 - 130	16	30
2-Butanone (MEK)	0.0400	0.03893		mg/L		97	70 - 130	7	30
Carbon tetrachloride	0.0200	0.02113		mg/L		106	70 - 130	2	30
Chlorobenzene	0.0200	0.01984		mg/L		99	70 - 130	4	30
Chlorobromomethane	0.0200	0.01890		mg/L		94	70 - 130	3	30
Chloroethane	0.0200	0.02124		mg/L		106	70 - 130	0	30
Chloroform	0.0200	0.01969		mg/L		98	70 - 130	3	30
Chloromethane	0.0200	0.01777		mg/L		89	70 - 130	2	30
2-Chlorotoluene	0.0200	0.02013		mg/L		101	70 - 130	2	30
4-Chlorotoluene	0.0200	0.02110		mg/L		106	70 - 130	4	30
cis-1,2-Dichloroethene	0.0200	0.01954		mg/L		98	70 - 130	3	30
cis-1,3-Dichloropropene	0.0200	0.02097		mg/L		105	70 - 130	2	30
Dibromochloromethane	0.0200	0.01958		mg/L		98	70 - 130	3	30
1,2-Dibromo-3-Chloropropane	0.0200	0.01894		mg/L		95	70 - 130	8	30
1,2-Dichlorobenzene	0.0200	0.02079		mg/L		104	70 - 130	3	30
1,3-Dichlorobenzene	0.0200	0.02085		mg/L		104	70 - 130	3	30
1,4-Dichlorobenzene	0.0200	0.01893		mg/L		95	70 - 130	4	30
Dichlorodifluoromethane	0.0200	0.01879		mg/L		94	70 - 130	4	30
1,1-Dichloroethane	0.0200	0.02005		mg/L		100	70 - 130	4	30
1,2-Dichloroethane	0.0200	0.01994		mg/L		100	70 - 130	5	30
1,1-Dichloroethene	0.0200	0.01993		mg/L		100	70 - 130	5	30
1,2-Dichloropropane	0.0200	0.01969		mg/L		98	70 - 130	5	30
1,3-Dichloropropane	0.0200	0.01975		mg/L		99	70 - 130	3	30
2,2-Dichloropropane	0.0200	0.02119		mg/L		106	70 - 130	1	30
1,1-Dichloropropene	0.0200	0.01966		mg/L		98	70 - 130	2	30
Ethylbenzene	0.0200	0.02056		mg/L		103	70 - 130	4	30
Ethylene Dibromide	0.0200	0.02007		mg/L		100	70 - 130	4	30
Freon 113	0.0160	0.01634		mg/L		102	70 - 130	2	30
Hexachlorobutadiene	0.0200	0.01943		mg/L		97	70 - 130	8	30
2-Hexanone	0.0400	0.04179		mg/L		104	70 - 130	6	30
Isopropylbenzene	0.0200	0.02053		mg/L		103	70 - 130	5	30
Methylene bromide	0.0200	0.01972		mg/L		99	70 - 130	3	30
Methylene Chloride	0.0200	0.01866		mg/L		93	70 - 130	3	30
4-Methyl-2-pentanone (MIBK)	0.0400	0.04033		mg/L		101	70 - 130	5	30
Methyl tert-butyl ether	0.0160	0.01616		mg/L		101	70 - 130	4	30
m-Xylene & p-Xylene	0.0400	0.04073		mg/L		102	70 - 130	4	30
Naphthalene	0.0200	0.02355		mg/L		118	70 - 130	30	30
n-Butylbenzene	0.0200	0.02104		mg/L		105	70 - 130	9	30
N-Propylbenzene	0.0200	0.02168		mg/L		108	70 - 130	5	30
o-Xylene	0.0200	0.02063		mg/L		103	70 - 130	4	30
sec-Butylbenzene	0.0200	0.01879		mg/L		94	70 - 130	4	30
Styrene	0.0200	0.02119		mg/L		106	70 - 130	3	30
tert-Butylbenzene	0.0200	0.02056		mg/L		103	70 - 130	4	30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-280660/4
Matrix: Water
Analysis Batch: 280660

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.0200	0.01909		mg/L		95	70 - 130	2	30
1,1,2,2-Tetrachloroethane	0.0200	0.01954		mg/L		98	70 - 130	6	30
Tetrachloroethene	0.0200	0.02011		mg/L		101	70 - 130	4	30
Toluene	0.0200	0.01982		mg/L		99	70 - 130	3	30
trans-1,2-Dichloroethene	0.0200	0.01950		mg/L		98	70 - 130	5	30
trans-1,3-Dichloropropene	0.0200	0.02079		mg/L		104	70 - 130	3	30
1,2,4-Trichlorobenzene	0.0200	0.02489		mg/L		124	70 - 130	30	30
1,1,1-Trichloroethane	0.0200	0.02033		mg/L		102	70 - 130	3	30
1,1,2-Trichloroethane	0.0200	0.02027		mg/L		101	70 - 130	3	30
Trichloroethene	0.0200	0.01976		mg/L		99	70 - 130	0	30
Trichlorofluoromethane	0.0200	0.01958		mg/L		98	70 - 130	4	30
1,2,3-Trichloropropane	0.0200	0.01927		mg/L		96	70 - 130	4	30
1,2,4-Trimethylbenzene	0.0200	0.01796		mg/L		90	70 - 130	2	30
1,3,5-Trimethylbenzene	0.0200	0.01887		mg/L		94	70 - 130	3	30
Vinyl chloride	0.0200	0.01947		mg/L		97	70 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*70 - 130*
1,2-Dichlorobenzene-d4	*103*		*70 - 130*

Lab Sample ID: MB 680-281026/6
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:36	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 11:36	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 11:36	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 11:36	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 11:36	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:36	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 11:36	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 11:36	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 11:36	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/18/13 11:36	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 11:36	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 11:36	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 11:36	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 11:36	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 11:36	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 11:36	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 11:36	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 11:36	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 11:36	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-281026/6
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 11:36	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 11:36	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 11:36	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 11:36	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 11:36	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 11:36	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 11:36	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 11:36	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 11:36	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 11:36	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:36	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 11:36	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 11:36	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 11:36	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:36	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 11:36	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 11:36	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 11:36	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 11:36	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 11:36	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 11:36	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 11:36	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 11:36	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/18/13 11:36	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 11:36	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 11:36	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 11:36	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 11:36	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 11:36	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 11:36	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 11:36	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 11:36	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*70 - 130*		*06/18/13 11:36*	*1*
1,2-Dichlorobenzene-d4	*76*		*70 - 130*		*06/18/13 11:36*	*1*

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-281026/3
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0400	0.03970		mg/L		99	70 - 130
Benzene	0.0200	0.01990		mg/L		100	70 - 130
Bromobenzene	0.0200	0.02105		mg/L		105	70 - 130
Bromodichloromethane	0.0200	0.02176		mg/L		109	70 - 130
Bromoform	0.0200	0.02079		mg/L		104	70 - 130
Bromomethane	0.0200	0.01766		mg/L		88	70 - 130
2-Butanone (MEK)	0.0400	0.03719		mg/L		93	70 - 130
Carbon tetrachloride	0.0200	0.02384		mg/L		119	70 - 130
Chlorobenzene	0.0200	0.02030		mg/L		102	70 - 130
Chlorobromomethane	0.0200	0.01992		mg/L		100	70 - 130
Chloroethane	0.0200	0.02468		mg/L		123	70 - 130
Chloroform	0.0200	0.02005		mg/L		100	70 - 130
Chloromethane	0.0200	0.02074		mg/L		104	70 - 130
2-Chlorotoluene	0.0200	0.02151		mg/L		108	70 - 130
4-Chlorotoluene	0.0200	0.01997		mg/L		100	70 - 130
cis-1,2-Dichloroethene	0.0200	0.01997		mg/L		100	70 - 130
cis-1,3-Dichloropropene	0.0200	0.02201		mg/L		110	70 - 130
Dibromochloromethane	0.0200	0.02133		mg/L		107	70 - 130
1,2-Dibromo-3-Chloropropane	0.0200	0.02112		mg/L		106	70 - 130
1,2-Dichlorobenzene	0.0200	0.01956		mg/L		98	70 - 130
1,3-Dichlorobenzene	0.0200	0.01972		mg/L		99	70 - 130
1,4-Dichlorobenzene	0.0200	0.01973		mg/L		99	70 - 130
Dichlorodifluoromethane	0.0200	0.02051		mg/L		103	70 - 130
1,1-Dichloroethane	0.0200	0.01971		mg/L		99	70 - 130
1,2-Dichloroethane	0.0200	0.02003		mg/L		100	70 - 130
1,1-Dichloroethene	0.0200	0.02022		mg/L		101	70 - 130
1,2-Dichloropropane	0.0200	0.02036		mg/L		102	70 - 130
1,3-Dichloropropane	0.0200	0.02034		mg/L		102	70 - 130
2,2-Dichloropropane	0.0200	0.02109		mg/L		105	70 - 130
1,1-Dichloropropene	0.0200	0.02060		mg/L		103	70 - 130
Ethylbenzene	0.0200	0.02087		mg/L		104	70 - 130
Ethylene Dibromide	0.0200	0.02101		mg/L		105	70 - 130
Freon 113	0.0160	0.01633		mg/L		102	70 - 130
Hexachlorobutadiene	0.0200	0.02021		mg/L		101	70 - 130
2-Hexanone	0.0400	0.04053		mg/L		101	70 - 130
Isopropylbenzene	0.0200	0.02160		mg/L		108	70 - 130
Methylene bromide	0.0200	0.02065		mg/L		103	70 - 130
Methylene Chloride	0.0200	0.01951		mg/L		98	70 - 130
4-Methyl-2-pentanone (MIBK)	0.0400	0.03927		mg/L		98	70 - 130
Methyl tert-butyl ether	0.0160	0.01638		mg/L		102	70 - 130
m-Xylene & p-Xylene	0.0400	0.04302		mg/L		108	70 - 130
Naphthalene	0.0200	0.01904		mg/L		95	70 - 130
n-Butylbenzene	0.0200	0.02220		mg/L		111	70 - 130
N-Propylbenzene	0.0200	0.01991		mg/L		100	70 - 130
o-Xylene	0.0200	0.02104		mg/L		105	70 - 130
sec-Butylbenzene	0.0200	0.01968		mg/L		98	70 - 130
Styrene	0.0200	0.01991		mg/L		100	70 - 130
tert-Butylbenzene	0.0200	0.02250		mg/L		112	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-281026/3
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.0200	0.02281		mg/L		114	70 - 130
1,1,2,2-Tetrachloroethane	0.0200	0.02059		mg/L		103	70 - 130
Tetrachloroethene	0.0200	0.02003		mg/L		100	70 - 130
Toluene	0.0200	0.02040		mg/L		102	70 - 130
trans-1,2-Dichloroethene	0.0200	0.02005		mg/L		100	70 - 130
trans-1,3-Dichloropropene	0.0200	0.02087		mg/L		104	70 - 130
1,2,4-Trichlorobenzene	0.0200	0.02051		mg/L		103	70 - 130
1,1,1-Trichloroethane	0.0200	0.02111		mg/L		106	70 - 130
1,1,2-Trichloroethane	0.0200	0.02008		mg/L		100	70 - 130
Trichloroethene	0.0200	0.01982		mg/L		99	70 - 130
Trichlorofluoromethane	0.0200	0.01935		mg/L		97	70 - 130
1,2,3-Trichloropropane	0.0200	0.01980		mg/L		99	70 - 130
1,2,4-Trimethylbenzene	0.0200	0.02151		mg/L		108	70 - 130
1,3,5-Trimethylbenzene	0.0200	0.01989		mg/L		99	70 - 130
Vinyl chloride	0.0200	0.01939		mg/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*70 - 130*
1,2-Dichlorobenzene-d4	*106*		*70 - 130*

Lab Sample ID: LCSD 680-281026/4
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0400	0.03876		mg/L		97	70 - 130	2	30
Benzene	0.0200	0.02017		mg/L		101	70 - 130	1	30
Bromobenzene	0.0200	0.02105		mg/L		105	70 - 130	0	30
Bromodichloromethane	0.0200	0.02209		mg/L		110	70 - 130	2	30
Bromoform	0.0200	0.02061		mg/L		103	70 - 130	1	30
Bromomethane	0.0200	0.02018		mg/L		101	70 - 130	13	30
2-Butanone (MEK)	0.0400	0.03440		mg/L		86	70 - 130	8	30
Carbon tetrachloride	0.0200	0.02370		mg/L		119	70 - 130	1	30
Chlorobenzene	0.0200	0.02068		mg/L		103	70 - 130	2	30
Chlorobromomethane	0.0200	0.01990		mg/L		100	70 - 130	0	30
Chloroethane	0.0200	0.02727	*	mg/L		136	70 - 130	10	30
Chloroform	0.0200	0.02040		mg/L		102	70 - 130	2	30
Chloromethane	0.0200	0.02157		mg/L		108	70 - 130	4	30
2-Chlorotoluene	0.0200	0.02174		mg/L		109	70 - 130	1	30
4-Chlorotoluene	0.0200	0.02040		mg/L		102	70 - 130	2	30
cis-1,2-Dichloroethene	0.0200	0.01987		mg/L		99	70 - 130	0	30
cis-1,3-Dichloropropene	0.0200	0.02231		mg/L		112	70 - 130	1	30
Dibromochloromethane	0.0200	0.02124		mg/L		106	70 - 130	0	30
1,2-Dibromo-3-Chloropropane	0.0200	0.02094		mg/L		105	70 - 130	1	30
1,2-Dichlorobenzene	0.0200	0.01975		mg/L		99	70 - 130	1	30
1,3-Dichlorobenzene	0.0200	0.01968		mg/L		98	70 - 130	0	30
1,4-Dichlorobenzene	0.0200	0.01986		mg/L		99	70 - 130	1	30
Dichlorodifluoromethane	0.0200	0.02101		mg/L		105	70 - 130	2	30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-281026/4
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0200	0.02060		mg/L		103	70 - 130	4	30
1,2-Dichloroethane	0.0200	0.02006		mg/L		100	70 - 130	0	30
1,1-Dichloroethene	0.0200	0.02033		mg/L		102	70 - 130	1	30
1,2-Dichloropropane	0.0200	0.02107		mg/L		105	70 - 130	3	30
1,3-Dichloropropane	0.0200	0.02050		mg/L		102	70 - 130	1	30
2,2-Dichloropropane	0.0200	0.02129		mg/L		106	70 - 130	1	30
1,1-Dichloropropene	0.0200	0.02080		mg/L		104	70 - 130	1	30
Ethylbenzene	0.0200	0.02127		mg/L		106	70 - 130	2	30
Ethylene Dibromide	0.0200	0.02080		mg/L		104	70 - 130	1	30
Freon 113	0.0160	0.01616		mg/L		101	70 - 130	1	30
Hexachlorobutadiene	0.0200	0.02047		mg/L		102	70 - 130	1	30
2-Hexanone	0.0400	0.04077		mg/L		102	70 - 130	1	30
Isopropylbenzene	0.0200	0.02196		mg/L		110	70 - 130	2	30
Methylene bromide	0.0200	0.02076		mg/L		104	70 - 130	1	30
Methylene Chloride	0.0200	0.01995		mg/L		100	70 - 130	2	30
4-Methyl-2-pentanone (MIBK)	0.0400	0.03929		mg/L		98	70 - 130	0	30
Methyl tert-butyl ether	0.0160	0.01626		mg/L		102	70 - 130	1	30
m-Xylene & p-Xylene	0.0400	0.04383		mg/L		110	70 - 130	2	30
Naphthalene	0.0200	0.02058		mg/L		103	70 - 130	8	30
n-Butylbenzene	0.0200	0.02171		mg/L		109	70 - 130	2	30
N-Propylbenzene	0.0200	0.02034		mg/L		102	70 - 130	2	30
o-Xylene	0.0200	0.02134		mg/L		107	70 - 130	1	30
sec-Butylbenzene	0.0200	0.01995		mg/L		100	70 - 130	1	30
Styrene	0.0200	0.02032		mg/L		102	70 - 130	2	30
tert-Butylbenzene	0.0200	0.02273		mg/L		114	70 - 130	1	30
1,1,1,2-Tetrachloroethane	0.0200	0.02317		mg/L		116	70 - 130	2	30
1,1,2,2-Tetrachloroethane	0.0200	0.02094		mg/L		105	70 - 130	2	30
Tetrachloroethene	0.0200	0.01996		mg/L		100	70 - 130	0	30
Toluene	0.0200	0.02062		mg/L		103	70 - 130	1	30
trans-1,2-Dichloroethene	0.0200	0.02023		mg/L		101	70 - 130	1	30
trans-1,3-Dichloropropene	0.0200	0.02164		mg/L		108	70 - 130	4	30
1,2,4-Trichlorobenzene	0.0200	0.02124		mg/L		106	70 - 130	3	30
1,1,1-Trichloroethane	0.0200	0.02128		mg/L		106	70 - 130	1	30
1,1,2-Trichloroethane	0.0200	0.02072		mg/L		104	70 - 130	3	30
Trichloroethene	0.0200	0.02031		mg/L		102	70 - 130	2	30
Trichlorofluoromethane	0.0200	0.01972		mg/L		99	70 - 130	2	30
1,2,3-Trichloropropane	0.0200	0.01983		mg/L		99	70 - 130	0	30
1,2,4-Trimethylbenzene	0.0200	0.02151		mg/L		108	70 - 130	0	30
1,3,5-Trimethylbenzene	0.0200	0.02016		mg/L		101	70 - 130	1	30
Vinyl chloride	0.0200	0.01941		mg/L		97	70 - 130	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*70 - 130*
1,2-Dichlorobenzene-d4	*105*		*70 - 130*

QC Association Summary

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

GC/MS VOA

Analysis Batch: 280660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-91015-1	GW-19	Total/NA	Water	524.2	
680-91015-2	GW-18	Total/NA	Water	524.2	
680-91015-3	GW-17	Total/NA	Water	524.2	
680-91015-4	GW-20	Total/NA	Water	524.2	
680-91015-6	GW-10	Total/NA	Water	524.2	
680-91015-7	GW-98	Total/NA	Water	524.2	
680-91015-8	FB-1	Total/NA	Water	524.2	
680-91015-9	Trip Blank	Total/NA	Water	524.2	
LCS 680-280660/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 680-280660/4	Lab Control Sample Dup	Total/NA	Water	524.2	
MB 680-280660/6	Method Blank	Total/NA	Water	524.2	

Analysis Batch: 281026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-91015-5	GW-22	Total/NA	Water	524.2	
LCS 680-281026/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 680-281026/4	Lab Control Sample Dup	Total/NA	Water	524.2	
MB 680-281026/6	Method Blank	Total/NA	Water	524.2	

Lab Chronicle

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Client Sample ID: GW-19 — Lab Sample ID: 680-91015-1

Date Collected: 06/04/13 11:50 — **Matrix: Water**
Date Received: 06/05/13 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	280660	06/15/13 17:12	AGM	TAL SAV

Client Sample ID: GW-18 — Lab Sample ID: 680-91015-2

Date Collected: 06/04/13 12:40 — **Matrix: Water**
Date Received: 06/05/13 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	280660	06/15/13 17:39	AGM	TAL SAV

Client Sample ID: GW-17 — Lab Sample ID: 680-91015-3

Date Collected: 06/04/13 13:23 — **Matrix: Water**
Date Received: 06/05/13 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	280660	06/15/13 18:09	AGM	TAL SAV

Client Sample ID: GW-20 — Lab Sample ID: 680-91015-4

Date Collected: 06/04/13 14:05 — **Matrix: Water**
Date Received: 06/05/13 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	280660	06/15/13 18:36	AGM	TAL SAV

Client Sample ID: GW-22 — Lab Sample ID: 680-91015-5

Date Collected: 06/04/13 14:50 — **Matrix: Water**
Date Received: 06/05/13 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281026	06/18/13 16:17	AGM	TAL SAV

Client Sample ID: GW-10 — Lab Sample ID: 680-91015-6

Date Collected: 06/04/13 15:40 — **Matrix: Water**
Date Received: 06/05/13 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	280660	06/15/13 19:30	AGM	TAL SAV

Lab Chronicle

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Client Sample ID: GW-98

Lab Sample ID: 680-91015-7

Date Collected: 06/04/13 15:30
Matrix: Water
Date Received: 06/05/13 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	280660	06/15/13 19:57	AGM	TAL SAV

Client Sample ID: FB-1

Lab Sample ID: 680-91015-8

Date Collected: 06/04/13 15:20
Matrix: Water
Date Received: 06/05/13 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	280660	06/15/13 16:45	AGM	TAL SAV

Client Sample ID: Trip Blank

Lab Sample ID: 680-91015-9

Date Collected: 06/04/13 00:00
Matrix: Water
Date Received: 06/05/13 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	280660	06/15/13 16:18	AGM	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: Kermit PSW	PROJECT NO.: 1486519	PROJECT LOCATION (STATE): TX	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER: ~~Kim Wallace-Wymore~~ AK	P.O. NUMBER:	CONTRACT NO.:	STANDARD REPORT DELIVERY ✓ DATE DUE
CLIENT (SITE) PM: Kim Wallace-Wymore	CLIENT PHONE: 972-315-3422	CLIENT FAX: 315-5181	EXPEDITED REPORT DELIVERY (SURCHARGE) DATE DUE
CLIENT NAME: EA Engineering	CLIENT E-MAIL:		
CLIENT ADDRESS: 405 Stillwell C-100 Lewisville, TX 75067			NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1
COMPANY CONTRACTING THIS WORK (if applicable): TCEQ			

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: VOC 5342; none

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
6-4-13	1150	SW-19		✓				3	
	1240	SW-18		✓				3	
	1323	SW-17		✓				3	
	1405	SW-20		✓				3	
	1450	SW-22		✓				3	
	1540	SW-10		✓				3	
	1530	SW-98		✓				3	
	1520	FB-1		✓				3	
		Trip Blank		✓				2 AK	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	6-4-13	1830						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
Fedex 3032 2246 7462								

LABORATORY USE ONLY 68011240

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
GKL	6/5/13	1001	YES ○ NO ○		680-91015	4.2°C

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: EA Engineering, Science, and Technology

Job Number: 680-91015-1
SDG Number: 68091015-1

Login Number: 91015
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: EA Engineering, Science, and Technology
Project/Site: 1486519/Kermit PSW

TestAmerica Job ID: 680-91015-1
SDG: 68091015-1

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		399.01	07-31-13
Alabama	State Program	4	41450	06-30-13
Arkansas DEQ	State Program	6	88-0692	02-01-13 *
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-13
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13 *
Kentucky	State Program	4	90084	12-31-12 *
Kentucky (UST)	State Program	4	18	03-31-13 *
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13 *
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-13 *
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-13 *
Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	06-30-13
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

* Expired certification is currently pending renewal and is considered valid.

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-91077-1
TestAmerica Sample Delivery Group: 68091077-1
Client Project/Site: Kermit PWS/1486519

For:
EA Engineering, Science, and Technology
405 S. Highway 121 bypass
Building C
Suite 100
Lewisville, Texas 75067

Attn: Kimberly Wallace-Wymore

Authorized for release by:
6/24/2013 2:25:02 PM

Sheila Hoffman, Project Manager I
sheila.hoffman@testamericainc.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 680-91077-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: EA Engineering, Science, and Technology

Project: Kermit PWS/1486519

Report Number: 680-91077-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 06/06/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GW-16 (680-91077-1), GW-25 (680-91077-2), GW-9 (680-91077-3), GW-1 (680-91077-4), GW-12 (680-91077-5), GW-99 (680-91077-6), GW-13 (680-91077-7), GW-11 (680-91077-8), FB-2 (680-91077-9), GW-26 (680-91077-10) and Trip Blank (680-91077-11) were analyzed for Volatile organic Compounds (GC-MS) in accordance with EPA Method 524.2. The samples were analyzed on 06/18/2013 and 06/19/2013.

1,2,4-Trichlorobenzene and n-Butylbenzene were detected in method blank MB 680-281025/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

1,2,4-Trichlorobenzene was detected in method blank MB 680-281165/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Chloroethane failed the recovery criteria high for LCSD 680-281026/4. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

Sample Summary

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-91077-1	GW-16	Water	06/05/13 09:22	06/06/13 09:30
680-91077-2	GW-25	Water	06/05/13 10:30	06/06/13 09:30
680-91077-3	GW-9	Water	06/05/13 11:23	06/06/13 09:30
680-91077-4	GW-1	Water	06/05/13 12:02	06/06/13 09:30
680-91077-5	GW-12	Water	06/05/13 12:40	06/06/13 09:30
680-91077-6	GW-99	Water	06/05/13 13:00	06/06/13 09:30
680-91077-7	GW-13	Water	06/05/13 13:30	06/06/13 09:30
680-91077-8	GW-11	Water	06/05/13 13:53	06/06/13 09:30
680-91077-9	FB-2	Water	06/05/13 14:40	06/06/13 09:30
680-91077-10	GW-26	Water	06/05/13 14:55	06/06/13 09:30
680-91077-11	Trip Blank	Water	06/05/13 00:00	06/06/13 09:30

Method Summary

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL SAV

Protocol References:

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Definitions/Glossary

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Client Sample ID: GW-16

Date Collected: 06/05/13 09:22
Date Received: 06/06/13 09:30

Lab Sample ID: 680-91077-1

Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:13	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:13	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 17:13	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 17:13	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 17:13	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 17:13	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:13	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 17:13	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:13	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:13	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/18/13 17:13	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 17:13	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:13	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:13	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:13	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 17:13	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:13	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 17:13	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:13	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:13	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:13	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:13	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 17:13	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 17:13	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:13	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:13	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 17:13	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 17:13	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 17:13	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 17:13	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 17:13	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 17:13	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 17:13	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 17:13	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:13	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 17:13	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 17:13	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 17:13	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:13	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 17:13	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 17:13	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 17:13	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:13	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:13	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:13	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:13	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 17:13	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:13	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:13	1

Client Sample ID: GW-16

Lab Sample ID: 680-91077-1

Date Collected: 06/05/13 09:22
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:13	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:13	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 17:13	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 17:13	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 17:13	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:13	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:13	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 17:13	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 17:13	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 17:13	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:13	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:13	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:13	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*70 - 130*		*06/18/13 17:13*	*1*
1,2-Dichlorobenzene-d4	*91*		*70 - 130*		*06/18/13 17:13*	*1*

Client Sample ID: GW-25

Lab Sample ID: 680-91077-2

Date Collected: 06/05/13 10:30
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:35	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:35	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 17:35	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 17:35	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 17:35	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 17:35	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:35	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 17:35	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:35	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:35	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/18/13 17:35	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 17:35	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:35	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:35	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:35	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 17:35	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:35	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 17:35	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:35	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:35	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:35	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:35	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 17:35	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 17:35	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:35	1

Client Sample ID: GW-25

Lab Sample ID: 680-91077-2

Date Collected: 06/05/13 10:30
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:35	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 17:35	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 17:35	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 17:35	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 17:35	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 17:35	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 17:35	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 17:35	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 17:35	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:35	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 17:35	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 17:35	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 17:35	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:35	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 17:35	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 17:35	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 17:35	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:35	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:35	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:35	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:35	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 17:35	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:35	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:35	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:35	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:35	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 17:35	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 17:35	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 17:35	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:35	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:35	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 17:35	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 17:35	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 17:35	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:35	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:35	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:35	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*		*06/18/13 17:35*	*1*
1,2-Dichlorobenzene-d4	*93*		*70 - 130*		*06/18/13 17:35*	*1*

Client Sample ID: GW-9

Lab Sample ID: 680-91077-3

Date Collected: 06/05/13 11:23
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:58	1

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Client Sample ID: GW-9
Date Collected: 06/05/13 11:23
Date Received: 06/06/13 09:30

Lab Sample ID: 680-91077-3
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:58	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 17:58	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 17:58	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 17:58	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 17:58	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:58	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 17:58	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:58	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:58	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/18/13 17:58	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 17:58	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:58	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:58	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:58	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 17:58	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:58	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 17:58	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:58	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:58	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:58	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:58	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 17:58	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 17:58	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:58	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:58	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 17:58	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 17:58	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 17:58	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 17:58	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 17:58	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 17:58	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 17:58	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 17:58	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:58	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 17:58	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 17:58	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 17:58	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:58	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 17:58	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 17:58	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 17:58	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:58	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:58	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:58	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:58	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 17:58	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:58	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:58	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:58	1

Client Sample ID: GW-9

Lab Sample ID: 680-91077-3

Date Collected: 06/05/13 11:23
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**0.0233**		0.000500	0.000300	mg/L			06/18/13 17:58	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 17:58	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 17:58	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 17:58	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:58	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:58	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 17:58	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 17:58	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 17:58	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:58	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:58	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:58	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 130*		*06/18/13 17:58*	*1*
1,2-Dichlorobenzene-d4	*91*		*70 - 130*		*06/18/13 17:58*	*1*

Client Sample ID: GW-1

Lab Sample ID: 680-91077-4

Date Collected: 06/05/13 12:02
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 16:44	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:44	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 16:44	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 16:44	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 16:44	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 16:44	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 16:44	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 16:44	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 16:44	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 16:44	1
Chloroethane	<0.000330	*	0.00100	0.000330	mg/L			06/18/13 16:44	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 16:44	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 16:44	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:44	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 16:44	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 16:44	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 16:44	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 16:44	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 16:44	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:44	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 16:44	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:44	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 16:44	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 16:44	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:44	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 16:44	1

Client Sample ID: GW-1

Lab Sample ID: 680-91077-4

Date Collected: 06/05/13 12:02
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 16:44	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 16:44	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 16:44	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 16:44	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 16:44	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 16:44	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 16:44	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 16:44	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 16:44	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 16:44	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 16:44	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 16:44	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 16:44	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 16:44	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 16:44	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 16:44	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:44	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:44	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 16:44	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 16:44	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 16:44	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 16:44	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 16:44	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:44	1
Tetrachloroethene	**0.00254**		0.000500	0.000300	mg/L			06/18/13 16:44	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 16:44	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 16:44	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 16:44	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:44	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 16:44	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 16:44	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 16:44	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 16:44	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 16:44	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 16:44	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 16:44	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*70 - 130*		*06/18/13 16:44*	*1*
1,2-Dichlorobenzene-d4	*70*		*70 - 130*		*06/18/13 16:44*	*1*

Client Sample ID: GW-12

Lab Sample ID: 680-91077-5

Date Collected: 06/05/13 12:40
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/19/13 12:47	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 12:47	1

Client Sample ID: GW-12

Date Collected: 06/05/13 12:40
Date Received: 06/06/13 09:30

Lab Sample ID: 680-91077-5

Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/19/13 12:47	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/19/13 12:47	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/19/13 12:47	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/19/13 12:47	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 12:47	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/19/13 12:47	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/19/13 12:47	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/19/13 12:47	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/19/13 12:47	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/19/13 12:47	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/19/13 12:47	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:47	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/19/13 12:47	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 12:47	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/19/13 12:47	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/19/13 12:47	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/19/13 12:47	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:47	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 12:47	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 12:47	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/19/13 12:47	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/19/13 12:47	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:47	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/19/13 12:47	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/19/13 12:47	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/19/13 12:47	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/19/13 12:47	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/19/13 12:47	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/19/13 12:47	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/19/13 12:47	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/19/13 12:47	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/19/13 12:47	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/19/13 12:47	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/19/13 12:47	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/19/13 12:47	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/19/13 12:47	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 12:47	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/19/13 12:47	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/19/13 12:47	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/19/13 12:47	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:47	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:47	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/19/13 12:47	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 12:47	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/19/13 12:47	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 12:47	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/19/13 12:47	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/19/13 12:47	1
Tetrachloroethene	**0.00152**		0.000500	0.000300	mg/L			06/19/13 12:47	1

Client Sample ID: GW-12

Lab Sample ID: 680-91077-5

Date Collected: 06/05/13 12:40

Matrix: Water

Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.000230		0.000500	0.000230	mg/L			06/19/13 12:47	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/19/13 12:47	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/19/13 12:47	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 12:47	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/19/13 12:47	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/19/13 12:47	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 12:47	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/19/13 12:47	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/19/13 12:47	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:47	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/19/13 12:47	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/19/13 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*70 - 130*		*06/19/13 12:47*	*1*
1,2-Dichlorobenzene-d4	*90*		*70 - 130*		*06/19/13 12:47*	*1*

Client Sample ID: GW-99

Lab Sample ID: 680-91077-6

Date Collected: 06/05/13 13:00

Matrix: Water

Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:38	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:38	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 17:38	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 17:38	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 17:38	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 17:38	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:38	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 17:38	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:38	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:38	1
Chloroethane	<0.000330	*	0.00100	0.000330	mg/L			06/18/13 17:38	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 17:38	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:38	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:38	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:38	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 17:38	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:38	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 17:38	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 17:38	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:38	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:38	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:38	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 17:38	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 17:38	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:38	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 17:38	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 17:38	1

Client Sample ID: GW-99

Lab Sample ID: 680-91077-6

Date Collected: 06/05/13 13:00
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 17:38	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 17:38	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 17:38	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 17:38	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 17:38	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 17:38	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 17:38	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:38	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 17:38	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 17:38	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 17:38	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 17:38	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 17:38	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 17:38	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 17:38	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:38	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:38	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:38	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:38	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 17:38	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 17:38	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:38	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:38	1
Tetrachloroethene	**0.00144**		0.000500	0.000300	mg/L			06/18/13 17:38	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 17:38	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 17:38	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 17:38	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:38	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 17:38	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 17:38	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 17:38	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 17:38	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 17:38	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 17:38	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 17:38	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*70 - 130*		*06/18/13 17:38*	*1*
1,2-Dichlorobenzene-d4	*73*		*70 - 130*		*06/18/13 17:38*	*1*

Client Sample ID: GW-13

Lab Sample ID: 680-91077-7

Date Collected: 06/05/13 13:30
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:09	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:09	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/19/13 13:09	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Client Sample ID: GW-13

Date Collected: 06/05/13 13:30
Date Received: 06/06/13 09:30

Lab Sample ID: 680-91077-7

Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/19/13 13:09	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/19/13 13:09	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/19/13 13:09	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:09	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/19/13 13:09	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/19/13 13:09	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/19/13 13:09	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/19/13 13:09	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/19/13 13:09	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/19/13 13:09	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:09	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/19/13 13:09	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 13:09	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/19/13 13:09	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/19/13 13:09	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/19/13 13:09	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:09	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 13:09	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:09	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/19/13 13:09	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/19/13 13:09	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:09	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/19/13 13:09	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/19/13 13:09	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/19/13 13:09	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/19/13 13:09	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/19/13 13:09	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/19/13 13:09	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/19/13 13:09	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/19/13 13:09	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/19/13 13:09	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:09	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/19/13 13:09	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/19/13 13:09	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/19/13 13:09	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:09	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/19/13 13:09	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/19/13 13:09	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/19/13 13:09	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:09	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:09	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/19/13 13:09	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 13:09	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/19/13 13:09	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 13:09	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/19/13 13:09	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:09	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/19/13 13:09	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/19/13 13:09	1

Client Sample ID: GW-13

Lab Sample ID: 680-91077-7

Date Collected: 06/05/13 13:30
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/19/13 13:09	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/19/13 13:09	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:09	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/19/13 13:09	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/19/13 13:09	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 13:09	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/19/13 13:09	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:09	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:09	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/19/13 13:09	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/19/13 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*70 - 130*		*06/19/13 13:09*	*1*
1,2-Dichlorobenzene-d4	*90*		*70 - 130*		*06/19/13 13:09*	*1*

Client Sample ID: GW-11

Lab Sample ID: 680-91077-8

Date Collected: 06/05/13 13:53
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:31	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:31	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/19/13 13:31	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/19/13 13:31	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/19/13 13:31	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/19/13 13:31	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:31	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/19/13 13:31	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/19/13 13:31	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/19/13 13:31	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/19/13 13:31	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/19/13 13:31	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/19/13 13:31	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:31	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/19/13 13:31	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 13:31	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/19/13 13:31	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/19/13 13:31	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/19/13 13:31	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:31	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 13:31	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:31	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/19/13 13:31	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/19/13 13:31	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:31	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/19/13 13:31	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/19/13 13:31	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/19/13 13:31	1

Client Sample ID: GW-11

Lab Sample ID: 680-91077-8

Date Collected: 06/05/13 13:53
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/19/13 13:31	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/19/13 13:31	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/19/13 13:31	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/19/13 13:31	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/19/13 13:31	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/19/13 13:31	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:31	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/19/13 13:31	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/19/13 13:31	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/19/13 13:31	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:31	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/19/13 13:31	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/19/13 13:31	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/19/13 13:31	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:31	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:31	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/19/13 13:31	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 13:31	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/19/13 13:31	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 13:31	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/19/13 13:31	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:31	1
Tetrachloroethene	**0.00324**		0.000500	0.000300	mg/L			06/19/13 13:31	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/19/13 13:31	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/19/13 13:31	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/19/13 13:31	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:31	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/19/13 13:31	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/19/13 13:31	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 13:31	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/19/13 13:31	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:31	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:31	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/19/13 13:31	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/19/13 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*70 - 130*		*06/19/13 13:31*	*1*
1,2-Dichlorobenzene-d4	*90*		*70 - 130*		*06/19/13 13:31*	*1*

Client Sample ID: FB-2

Lab Sample ID: 680-91077-9

Date Collected: 06/05/13 14:40
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 18:59	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 18:59	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 18:59	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 18:59	1

Client Sample ID: FB-2

Lab Sample ID: 680-91077-9

Date Collected: 06/05/13 14:40

Matrix: Water

Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 18:59	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 18:59	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 18:59	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 18:59	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 18:59	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 18:59	1
Chloroethane	<0.000330	*	0.00100	0.000330	mg/L			06/18/13 18:59	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 18:59	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 18:59	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 18:59	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 18:59	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 18:59	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 18:59	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 18:59	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 18:59	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 18:59	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 18:59	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 18:59	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 18:59	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 18:59	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 18:59	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 18:59	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 18:59	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 18:59	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 18:59	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 18:59	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 18:59	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 18:59	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 18:59	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 18:59	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 18:59	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 18:59	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 18:59	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 18:59	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 18:59	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 18:59	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 18:59	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 18:59	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 18:59	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 18:59	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 18:59	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 18:59	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 18:59	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 18:59	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 18:59	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 18:59	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/18/13 18:59	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 18:59	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 18:59	1

Client Sample ID: FB-2

Lab Sample ID: 680-91077-9

Date Collected: 06/05/13 14:40
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 18:59	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 18:59	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 18:59	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 18:59	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 18:59	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 18:59	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 18:59	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 18:59	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 18:59	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*70 - 130*		*06/18/13 18:59*	*1*
1,2-Dichlorobenzene-d4	*74*		*70 - 130*		*06/18/13 18:59*	*1*

Client Sample ID: GW-26

Lab Sample ID: 680-91077-10

Date Collected: 06/05/13 14:55
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:54	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:54	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/19/13 13:54	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/19/13 13:54	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/19/13 13:54	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/19/13 13:54	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:54	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/19/13 13:54	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/19/13 13:54	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/19/13 13:54	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/19/13 13:54	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/19/13 13:54	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/19/13 13:54	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:54	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/19/13 13:54	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 13:54	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/19/13 13:54	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/19/13 13:54	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/19/13 13:54	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:54	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 13:54	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:54	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/19/13 13:54	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/19/13 13:54	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:54	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/19/13 13:54	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/19/13 13:54	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/19/13 13:54	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/19/13 13:54	1

Client Sample ID: GW-26

Lab Sample ID: 680-91077-10

Date Collected: 06/05/13 14:55
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/19/13 13:54	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/19/13 13:54	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/19/13 13:54	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/19/13 13:54	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/19/13 13:54	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:54	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/19/13 13:54	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/19/13 13:54	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/19/13 13:54	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 13:54	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/19/13 13:54	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/19/13 13:54	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/19/13 13:54	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:54	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:54	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/19/13 13:54	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 13:54	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/19/13 13:54	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 13:54	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/19/13 13:54	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:54	1
Tetrachloroethene	**0.000797**		0.000500	0.000300	mg/L			06/19/13 13:54	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/19/13 13:54	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/19/13 13:54	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/19/13 13:54	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:54	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/19/13 13:54	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/19/13 13:54	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 13:54	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/19/13 13:54	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/19/13 13:54	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 13:54	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/19/13 13:54	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/19/13 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*70 - 130*		*06/19/13 13:54*	*1*
1,2-Dichlorobenzene-d4	*89*		*70 - 130*		*06/19/13 13:54*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 680-91077-11

Date Collected: 06/05/13 00:00
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/19/13 14:16	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 14:16	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/19/13 14:16	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/19/13 14:16	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/19/13 14:16	1

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Client Sample ID: Trip Blank
Date Collected: 06/05/13 00:00
Date Received: 06/06/13 09:30

Lab Sample ID: 680-91077-11
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/19/13 14:16	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 14:16	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/19/13 14:16	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/19/13 14:16	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/19/13 14:16	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/19/13 14:16	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/19/13 14:16	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/19/13 14:16	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/19/13 14:16	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/19/13 14:16	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 14:16	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/19/13 14:16	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/19/13 14:16	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/19/13 14:16	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 14:16	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 14:16	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 14:16	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/19/13 14:16	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/19/13 14:16	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/19/13 14:16	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/19/13 14:16	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/19/13 14:16	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/19/13 14:16	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/19/13 14:16	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/19/13 14:16	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/19/13 14:16	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/19/13 14:16	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/19/13 14:16	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/19/13 14:16	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/19/13 14:16	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/19/13 14:16	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/19/13 14:16	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/19/13 14:16	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 14:16	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/19/13 14:16	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/19/13 14:16	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/19/13 14:16	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 14:16	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 14:16	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/19/13 14:16	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 14:16	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/19/13 14:16	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 14:16	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/19/13 14:16	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/19/13 14:16	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/19/13 14:16	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/19/13 14:16	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/19/13 14:16	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/19/13 14:16	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-91077-11

Date Collected: 06/05/13 00:00
Matrix: Water
Date Received: 06/06/13 09:30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 14:16	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/19/13 14:16	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/19/13 14:16	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 14:16	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/19/13 14:16	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/19/13 14:16	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 14:16	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/19/13 14:16	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/19/13 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*70 - 130*		*06/19/13 14:16*	*1*
1,2-Dichlorobenzene-d4	*91*		*70 - 130*		*06/19/13 14:16*	*1*

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB (70-130)	12DCB (70-130)						
680-91077-1	GW-16	94	91						
680-91077-2	GW-25	96	93						
680-91077-3	GW-9	96	91						
680-91077-4	GW-1	86	70						
680-91077-5	GW-12	94	90						
680-91077-6	GW-99	88	73						
680-91077-7	GW-13	93	90						
680-91077-8	GW-11	92	90						
680-91077-9	FB-2	85	74						
680-91077-10	GW-26	94	89						
680-91077-11	Trip Blank	93	91						
LCS 680-281025/3	Lab Control Sample	99	98						
LCS 680-281026/3	Lab Control Sample	105	106						
LCS 680-281165/3	Lab Control Sample	105	106						
LCSD 680-281025/4	Lab Control Sample Dup	102	102						
LCSD 680-281026/4	Lab Control Sample Dup	107	105						
LCSD 680-281165/4	Lab Control Sample Dup	105	109						
MB 680-281025/6	Method Blank	97	90						
MB 680-281026/6	Method Blank	90	76						
MB 680-281165/6	Method Blank	94	94						

Surrogate Legend

BFB = 4-Bromofluorobenzene

12DCB = 1,2-Dichlorobenzene-d4

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-281025/6
Matrix: Water
Analysis Batch: 281025

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:06	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:06	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 11:06	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 11:06	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 11:06	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 11:06	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:06	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 11:06	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 11:06	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 11:06	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/18/13 11:06	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 11:06	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 11:06	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:06	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 11:06	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 11:06	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 11:06	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 11:06	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 11:06	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:06	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 11:06	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:06	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 11:06	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 11:06	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:06	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 11:06	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 11:06	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 11:06	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 11:06	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 11:06	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 11:06	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 11:06	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 11:06	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 11:06	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:06	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 11:06	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 11:06	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 11:06	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:06	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 11:06	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 11:06	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 11:06	1
n-Butylbenzene	0.0001720	J	0.000500	0.000170	mg/L			06/18/13 11:06	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:06	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 11:06	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 11:06	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 11:06	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 11:06	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-281025/6
Matrix: Water
Analysis Batch: 281025

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 11:06	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:06	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/18/13 11:06	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 11:06	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 11:06	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 11:06	1
1,2,4-Trichlorobenzene	0.0002009	J	0.000500	0.000180	mg/L			06/18/13 11:06	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 11:06	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 11:06	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 11:06	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 11:06	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:06	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:06	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 11:06	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 130*		*06/18/13 11:06*	*1*
1,2-Dichlorobenzene-d4	*90*		*70 - 130*		*06/18/13 11:06*	*1*

Lab Sample ID: LCS 680-281025/3
Matrix: Water
Analysis Batch: 281025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0400	0.03741		mg/L		94	70 - 130
Benzene	0.0200	0.01997		mg/L		100	70 - 130
Bromobenzene	0.0200	0.02017		mg/L		101	70 - 130
Bromodichloromethane	0.0200	0.02096		mg/L		105	70 - 130
Bromoform	0.0200	0.02099		mg/L		105	70 - 130
Bromomethane	0.0200	0.02162		mg/L		108	70 - 130
2-Butanone (MEK)	0.0400	0.04106		mg/L		103	70 - 130
Carbon tetrachloride	0.0200	0.02227		mg/L		111	70 - 130
Chlorobenzene	0.0200	0.02036		mg/L		102	70 - 130
Chlorobromomethane	0.0200	0.02001		mg/L		100	70 - 130
Chloroethane	0.0200	0.01758		mg/L		88	70 - 130
Chloroform	0.0200	0.02041		mg/L		102	70 - 130
Chloromethane	0.0200	0.01728		mg/L		86	70 - 130
2-Chlorotoluene	0.0200	0.02037		mg/L		102	70 - 130
4-Chlorotoluene	0.0200	0.02054		mg/L		103	70 - 130
cis-1,2-Dichloroethene	0.0200	0.02021		mg/L		101	70 - 130
cis-1,3-Dichloropropene	0.0200	0.02137		mg/L		107	70 - 130
Dibromochloromethane	0.0200	0.02096		mg/L		105	70 - 130
1,2-Dibromo-3-Chloropropane	0.0200	0.01947		mg/L		97	70 - 130
1,2-Dichlorobenzene	0.0200	0.02003		mg/L		100	70 - 130
1,3-Dichlorobenzene	0.0200	0.01996		mg/L		100	70 - 130
1,4-Dichlorobenzene	0.0200	0.02016		mg/L		101	70 - 130
Dichlorodifluoromethane	0.0200	0.02162		mg/L		108	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-281025/3
Matrix: Water
Analysis Batch: 281025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0200	0.01987		mg/L		99	70 - 130
1,2-Dichloroethane	0.0200	0.02019		mg/L		101	70 - 130
1,1-Dichloroethene	0.0200	0.01956		mg/L		98	70 - 130
1,2-Dichloropropane	0.0200	0.02036		mg/L		102	70 - 130
1,3-Dichloropropane	0.0200	0.02040		mg/L		102	70 - 130
2,2-Dichloropropane	0.0200	0.02180		mg/L		109	70 - 130
1,1-Dichloropropene	0.0200	0.02030		mg/L		101	70 - 130
Ethylbenzene	0.0200	0.02069		mg/L		103	70 - 130
Ethylene Dibromide	0.0200	0.02046		mg/L		102	70 - 130
Freon 113	0.0160	0.01680		mg/L		105	70 - 130
Hexachlorobutadiene	0.0200	0.02085		mg/L		104	70 - 130
2-Hexanone	0.0400	0.03842		mg/L		96	70 - 130
Isopropylbenzene	0.0200	0.02078		mg/L		104	70 - 130
Methylene bromide	0.0200	0.01986		mg/L		99	70 - 130
Methylene Chloride	0.0200	0.01978		mg/L		99	70 - 130
4-Methyl-2-pentanone (MIBK)	0.0400	0.03947		mg/L		99	70 - 130
Methyl tert-butyl ether	0.0160	0.01595		mg/L		100	70 - 130
m-Xylene & p-Xylene	0.0400	0.04048		mg/L		101	70 - 130
Naphthalene	0.0200	0.01988		mg/L		99	70 - 130
n-Butylbenzene	0.0200	0.01997		mg/L		100	70 - 130
N-Propylbenzene	0.0200	0.02042		mg/L		102	70 - 130
o-Xylene	0.0200	0.02088		mg/L		104	70 - 130
sec-Butylbenzene	0.0200	0.02064		mg/L		103	70 - 130
Styrene	0.0200	0.02114		mg/L		106	70 - 130
tert-Butylbenzene	0.0200	0.02078		mg/L		104	70 - 130
1,1,1,2-Tetrachloroethane	0.0200	0.02099		mg/L		105	70 - 130
1,1,2,2-Tetrachloroethane	0.0200	0.02032		mg/L		102	70 - 130
Tetrachloroethene	0.0200	0.01946		mg/L		97	70 - 130
Toluene	0.0200	0.02071		mg/L		104	70 - 130
trans-1,2-Dichloroethene	0.0200	0.01980		mg/L		99	70 - 130
trans-1,3-Dichloropropene	0.0200	0.02103		mg/L		105	70 - 130
1,2,4-Trichlorobenzene	0.0200	0.01979		mg/L		99	70 - 130
1,1,1-Trichloroethane	0.0200	0.02142		mg/L		107	70 - 130
1,1,2-Trichloroethane	0.0200	0.02080		mg/L		104	70 - 130
Trichloroethene	0.0200	0.01959		mg/L		98	70 - 130
Trichlorofluoromethane	0.0200	0.01975		mg/L		99	70 - 130
1,2,3-Trichloropropane	0.0200	0.01999		mg/L		100	70 - 130
1,2,4-Trimethylbenzene	0.0200	0.02068		mg/L		103	70 - 130
1,3,5-Trimethylbenzene	0.0200	0.02091		mg/L		105	70 - 130
Vinyl chloride	0.0200	0.01781		mg/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*70 - 130*
1,2-Dichlorobenzene-d4	*98*		*70 - 130*

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-281025/4
Matrix: Water
Analysis Batch: 281025

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0400	0.03795		mg/L		95	70 - 130	1	30
Benzene	0.0200	0.01967		mg/L		98	70 - 130	1	30
Bromobenzene	0.0200	0.02041		mg/L		102	70 - 130	1	30
Bromodichloromethane	0.0200	0.02088		mg/L		104	70 - 130	0	30
Bromoform	0.0200	0.02168		mg/L		108	70 - 130	3	30
Bromomethane	0.0200	0.01994		mg/L		100	70 - 130	8	30
2-Butanone (MEK)	0.0400	0.03964		mg/L		99	70 - 130	4	30
Carbon tetrachloride	0.0200	0.02184		mg/L		109	70 - 130	2	30
Chlorobenzene	0.0200	0.02016		mg/L		101	70 - 130	1	30
Chlorobromomethane	0.0200	0.02001		mg/L		100	70 - 130	0	30
Chloroethane	0.0200	0.01719		mg/L		86	70 - 130	2	30
Chloroform	0.0200	0.02028		mg/L		101	70 - 130	1	30
Chloromethane	0.0200	0.01712		mg/L		86	70 - 130	1	30
2-Chlorotoluene	0.0200	0.02053		mg/L		103	70 - 130	1	30
4-Chlorotoluene	0.0200	0.02067		mg/L		103	70 - 130	1	30
cis-1,2-Dichloroethene	0.0200	0.02010		mg/L		100	70 - 130	1	30
cis-1,3-Dichloropropene	0.0200	0.02127		mg/L		106	70 - 130	0	30
Dibromochloromethane	0.0200	0.02111		mg/L		106	70 - 130	1	30
1,2-Dibromo-3-Chloropropane	0.0200	0.02013		mg/L		101	70 - 130	3	30
1,2-Dichlorobenzene	0.0200	0.01979		mg/L		99	70 - 130	1	30
1,3-Dichlorobenzene	0.0200	0.01981		mg/L		99	70 - 130	1	30
1,4-Dichlorobenzene	0.0200	0.02021		mg/L		101	70 - 130	0	30
Dichlorodifluoromethane	0.0200	0.02117		mg/L		106	70 - 130	2	30
1,1-Dichloroethane	0.0200	0.01973		mg/L		99	70 - 130	1	30
1,2-Dichloroethane	0.0200	0.02046		mg/L		102	70 - 130	1	30
1,1-Dichloroethene	0.0200	0.01922		mg/L		96	70 - 130	2	30
1,2-Dichloropropane	0.0200	0.02001		mg/L		100	70 - 130	2	30
1,3-Dichloropropane	0.0200	0.02044		mg/L		102	70 - 130	0	30
2,2-Dichloropropane	0.0200	0.02137		mg/L		107	70 - 130	2	30
1,1-Dichloropropene	0.0200	0.02015		mg/L		101	70 - 130	1	30
Ethylbenzene	0.0200	0.02043		mg/L		102	70 - 130	1	30
Ethylene Dibromide	0.0200	0.02058		mg/L		103	70 - 130	1	30
Freon 113	0.0160	0.01646		mg/L		103	70 - 130	2	30
Hexachlorobutadiene	0.0200	0.02040		mg/L		102	70 - 130	2	30
2-Hexanone	0.0400	0.04089		mg/L		102	70 - 130	6	30
Isopropylbenzene	0.0200	0.02059		mg/L		103	70 - 130	1	30
Methylene bromide	0.0200	0.01992		mg/L		100	70 - 130	0	30
Methylene Chloride	0.0200	0.01953		mg/L		98	70 - 130	1	30
4-Methyl-2-pentanone (MIBK)	0.0400	0.03983		mg/L		100	70 - 130	1	30
Methyl tert-butyl ether	0.0160	0.01635		mg/L		102	70 - 130	2	30
m-Xylene & p-Xylene	0.0400	0.03996		mg/L		100	70 - 130	1	30
Naphthalene	0.0200	0.02074		mg/L		104	70 - 130	4	30
n-Butylbenzene	0.0200	0.01996		mg/L		100	70 - 130	0	30
N-Propylbenzene	0.0200	0.02034		mg/L		102	70 - 130	0	30
o-Xylene	0.0200	0.02091		mg/L		105	70 - 130	0	30
sec-Butylbenzene	0.0200	0.02062		mg/L		103	70 - 130	0	30
Styrene	0.0200	0.02123		mg/L		106	70 - 130	0	30
tert-Butylbenzene	0.0200	0.02065		mg/L		103	70 - 130	1	30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-281025/4
Matrix: Water
Analysis Batch: 281025

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.0200	0.02113		mg/L		106	70 - 130	1	30
1,1,2,2-Tetrachloroethane	0.0200	0.02079		mg/L		104	70 - 130	2	30
Tetrachloroethene	0.0200	0.01937		mg/L		97	70 - 130	0	30
Toluene	0.0200	0.02035		mg/L		102	70 - 130	2	30
trans-1,2-Dichloroethene	0.0200	0.02016		mg/L		101	70 - 130	2	30
trans-1,3-Dichloropropene	0.0200	0.02128		mg/L		106	70 - 130	1	30
1,2,4-Trichlorobenzene	0.0200	0.01970		mg/L		98	70 - 130	0	30
1,1,1-Trichloroethane	0.0200	0.02081		mg/L		104	70 - 130	3	30
1,1,2-Trichloroethane	0.0200	0.02062		mg/L		103	70 - 130	1	30
Trichloroethene	0.0200	0.01968		mg/L		98	70 - 130	0	30
Trichlorofluoromethane	0.0200	0.01950		mg/L		97	70 - 130	1	30
1,2,3-Trichloropropane	0.0200	0.02007		mg/L		100	70 - 130	0	30
1,2,4-Trimethylbenzene	0.0200	0.02061		mg/L		103	70 - 130	0	30
1,3,5-Trimethylbenzene	0.0200	0.02097		mg/L		105	70 - 130	0	30
Vinyl chloride	0.0200	0.01711		mg/L		86	70 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*70 - 130*
1,2-Dichlorobenzene-d4	*102*		*70 - 130*

Lab Sample ID: MB 680-281026/6
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:36	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/18/13 11:36	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/18/13 11:36	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/18/13 11:36	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/18/13 11:36	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:36	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/18/13 11:36	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/18/13 11:36	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/18/13 11:36	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/18/13 11:36	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/18/13 11:36	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/18/13 11:36	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/18/13 11:36	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 11:36	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/18/13 11:36	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/18/13 11:36	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/18/13 11:36	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 11:36	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/18/13 11:36	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-281026/6
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/18/13 11:36	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/18/13 11:36	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/18/13 11:36	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/18/13 11:36	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/18/13 11:36	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/18/13 11:36	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/18/13 11:36	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/18/13 11:36	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/18/13 11:36	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/18/13 11:36	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:36	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/18/13 11:36	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/18/13 11:36	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/18/13 11:36	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/18/13 11:36	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/18/13 11:36	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/18/13 11:36	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/18/13 11:36	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/18/13 11:36	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 11:36	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/18/13 11:36	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/18/13 11:36	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/18/13 11:36	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/18/13 11:36	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/18/13 11:36	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/18/13 11:36	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/18/13 11:36	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/18/13 11:36	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/18/13 11:36	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/18/13 11:36	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/18/13 11:36	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/18/13 11:36	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/18/13 11:36	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/18/13 11:36	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/18/13 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*70 - 130*		*06/18/13 11:36*	*1*
1,2-Dichlorobenzene-d4	*76*		*70 - 130*		*06/18/13 11:36*	*1*

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-281026/3
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0400	0.03970		mg/L		99	70 - 130
Benzene	0.0200	0.01990		mg/L		100	70 - 130
Bromobenzene	0.0200	0.02105		mg/L		105	70 - 130
Bromodichloromethane	0.0200	0.02176		mg/L		109	70 - 130
Bromoform	0.0200	0.02079		mg/L		104	70 - 130
Bromomethane	0.0200	0.01766		mg/L		88	70 - 130
2-Butanone (MEK)	0.0400	0.03719		mg/L		93	70 - 130
Carbon tetrachloride	0.0200	0.02384		mg/L		119	70 - 130
Chlorobenzene	0.0200	0.02030		mg/L		102	70 - 130
Chlorobromomethane	0.0200	0.01992		mg/L		100	70 - 130
Chloroethane	0.0200	0.02468		mg/L		123	70 - 130
Chloroform	0.0200	0.02005		mg/L		100	70 - 130
Chloromethane	0.0200	0.02074		mg/L		104	70 - 130
2-Chlorotoluene	0.0200	0.02151		mg/L		108	70 - 130
4-Chlorotoluene	0.0200	0.01997		mg/L		100	70 - 130
cis-1,2-Dichloroethene	0.0200	0.01997		mg/L		100	70 - 130
cis-1,3-Dichloropropene	0.0200	0.02201		mg/L		110	70 - 130
Dibromochloromethane	0.0200	0.02133		mg/L		107	70 - 130
1,2-Dibromo-3-Chloropropane	0.0200	0.02112		mg/L		106	70 - 130
1,2-Dichlorobenzene	0.0200	0.01956		mg/L		98	70 - 130
1,3-Dichlorobenzene	0.0200	0.01972		mg/L		99	70 - 130
1,4-Dichlorobenzene	0.0200	0.01973		mg/L		99	70 - 130
Dichlorodifluoromethane	0.0200	0.02051		mg/L		103	70 - 130
1,1-Dichloroethane	0.0200	0.01971		mg/L		99	70 - 130
1,2-Dichloroethane	0.0200	0.02003		mg/L		100	70 - 130
1,1-Dichloroethene	0.0200	0.02022		mg/L		101	70 - 130
1,2-Dichloropropane	0.0200	0.02036		mg/L		102	70 - 130
1,3-Dichloropropane	0.0200	0.02034		mg/L		102	70 - 130
2,2-Dichloropropane	0.0200	0.02109		mg/L		105	70 - 130
1,1-Dichloropropene	0.0200	0.02060		mg/L		103	70 - 130
Ethylbenzene	0.0200	0.02087		mg/L		104	70 - 130
Ethylene Dibromide	0.0200	0.02101		mg/L		105	70 - 130
Freon 113	0.0160	0.01633		mg/L		102	70 - 130
Hexachlorobutadiene	0.0200	0.02021		mg/L		101	70 - 130
2-Hexanone	0.0400	0.04053		mg/L		101	70 - 130
Isopropylbenzene	0.0200	0.02160		mg/L		108	70 - 130
Methylene bromide	0.0200	0.02065		mg/L		103	70 - 130
Methylene Chloride	0.0200	0.01951		mg/L		98	70 - 130
4-Methyl-2-pentanone (MIBK)	0.0400	0.03927		mg/L		98	70 - 130
Methyl tert-butyl ether	0.0160	0.01638		mg/L		102	70 - 130
m-Xylene & p-Xylene	0.0400	0.04302		mg/L		108	70 - 130
Naphthalene	0.0200	0.01904		mg/L		95	70 - 130
n-Butylbenzene	0.0200	0.02220		mg/L		111	70 - 130
N-Propylbenzene	0.0200	0.01991		mg/L		100	70 - 130
o-Xylene	0.0200	0.02104		mg/L		105	70 - 130
sec-Butylbenzene	0.0200	0.01968		mg/L		98	70 - 130
Styrene	0.0200	0.01991		mg/L		100	70 - 130
tert-Butylbenzene	0.0200	0.02250		mg/L		112	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-281026/3
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.0200	0.02281		mg/L		114	70 - 130
1,1,2,2-Tetrachloroethane	0.0200	0.02059		mg/L		103	70 - 130
Tetrachloroethene	0.0200	0.02003		mg/L		100	70 - 130
Toluene	0.0200	0.02040		mg/L		102	70 - 130
trans-1,2-Dichloroethene	0.0200	0.02005		mg/L		100	70 - 130
trans-1,3-Dichloropropene	0.0200	0.02087		mg/L		104	70 - 130
1,2,4-Trichlorobenzene	0.0200	0.02051		mg/L		103	70 - 130
1,1,1-Trichloroethane	0.0200	0.02111		mg/L		106	70 - 130
1,1,2-Trichloroethane	0.0200	0.02008		mg/L		100	70 - 130
Trichloroethene	0.0200	0.01982		mg/L		99	70 - 130
Trichlorofluoromethane	0.0200	0.01935		mg/L		97	70 - 130
1,2,3-Trichloropropane	0.0200	0.01980		mg/L		99	70 - 130
1,2,4-Trimethylbenzene	0.0200	0.02151		mg/L		108	70 - 130
1,3,5-Trimethylbenzene	0.0200	0.01989		mg/L		99	70 - 130
Vinyl chloride	0.0200	0.01939		mg/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*70 - 130*
1,2-Dichlorobenzene-d4	*106*		*70 - 130*

Lab Sample ID: LCSD 680-281026/4
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0400	0.03876		mg/L		97	70 - 130	2	30
Benzene	0.0200	0.02017		mg/L		101	70 - 130	1	30
Bromobenzene	0.0200	0.02105		mg/L		105	70 - 130	0	30
Bromodichloromethane	0.0200	0.02209		mg/L		110	70 - 130	2	30
Bromoform	0.0200	0.02061		mg/L		103	70 - 130	1	30
Bromomethane	0.0200	0.02018		mg/L		101	70 - 130	13	30
2-Butanone (MEK)	0.0400	0.03440		mg/L		86	70 - 130	8	30
Carbon tetrachloride	0.0200	0.02370		mg/L		119	70 - 130	1	30
Chlorobenzene	0.0200	0.02068		mg/L		103	70 - 130	2	30
Chlorobromomethane	0.0200	0.01990		mg/L		100	70 - 130	0	30
Chloroethane	0.0200	0.02727	*	mg/L		136	70 - 130	10	30
Chloroform	0.0200	0.02040		mg/L		102	70 - 130	2	30
Chloromethane	0.0200	0.02157		mg/L		108	70 - 130	4	30
2-Chlorotoluene	0.0200	0.02174		mg/L		109	70 - 130	1	30
4-Chlorotoluene	0.0200	0.02040		mg/L		102	70 - 130	2	30
cis-1,2-Dichloroethene	0.0200	0.01987		mg/L		99	70 - 130	0	30
cis-1,3-Dichloropropene	0.0200	0.02231		mg/L		112	70 - 130	1	30
Dibromochloromethane	0.0200	0.02124		mg/L		106	70 - 130	0	30
1,2-Dibromo-3-Chloropropane	0.0200	0.02094		mg/L		105	70 - 130	1	30
1,2-Dichlorobenzene	0.0200	0.01975		mg/L		99	70 - 130	1	30
1,3-Dichlorobenzene	0.0200	0.01968		mg/L		98	70 - 130	0	30
1,4-Dichlorobenzene	0.0200	0.01986		mg/L		99	70 - 130	1	30
Dichlorodifluoromethane	0.0200	0.02101		mg/L		105	70 - 130	2	30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-281026/4
Matrix: Water
Analysis Batch: 281026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0200	0.02060		mg/L		103	70 - 130	4	30
1,2-Dichloroethane	0.0200	0.02006		mg/L		100	70 - 130	0	30
1,1-Dichloroethene	0.0200	0.02033		mg/L		102	70 - 130	1	30
1,2-Dichloropropane	0.0200	0.02107		mg/L		105	70 - 130	3	30
1,3-Dichloropropane	0.0200	0.02050		mg/L		102	70 - 130	1	30
2,2-Dichloropropane	0.0200	0.02129		mg/L		106	70 - 130	1	30
1,1-Dichloropropene	0.0200	0.02080		mg/L		104	70 - 130	1	30
Ethylbenzene	0.0200	0.02127		mg/L		106	70 - 130	2	30
Ethylene Dibromide	0.0200	0.02080		mg/L		104	70 - 130	1	30
Freon 113	0.0160	0.01616		mg/L		101	70 - 130	1	30
Hexachlorobutadiene	0.0200	0.02047		mg/L		102	70 - 130	1	30
2-Hexanone	0.0400	0.04077		mg/L		102	70 - 130	1	30
Isopropylbenzene	0.0200	0.02196		mg/L		110	70 - 130	2	30
Methylene bromide	0.0200	0.02076		mg/L		104	70 - 130	1	30
Methylene Chloride	0.0200	0.01995		mg/L		100	70 - 130	2	30
4-Methyl-2-pentanone (MIBK)	0.0400	0.03929		mg/L		98	70 - 130	0	30
Methyl tert-butyl ether	0.0160	0.01626		mg/L		102	70 - 130	1	30
m-Xylene & p-Xylene	0.0400	0.04383		mg/L		110	70 - 130	2	30
Naphthalene	0.0200	0.02058		mg/L		103	70 - 130	8	30
n-Butylbenzene	0.0200	0.02171		mg/L		109	70 - 130	2	30
N-Propylbenzene	0.0200	0.02034		mg/L		102	70 - 130	2	30
o-Xylene	0.0200	0.02134		mg/L		107	70 - 130	1	30
sec-Butylbenzene	0.0200	0.01995		mg/L		100	70 - 130	1	30
Styrene	0.0200	0.02032		mg/L		102	70 - 130	2	30
tert-Butylbenzene	0.0200	0.02273		mg/L		114	70 - 130	1	30
1,1,1,2-Tetrachloroethane	0.0200	0.02317		mg/L		116	70 - 130	2	30
1,1,2,2-Tetrachloroethane	0.0200	0.02094		mg/L		105	70 - 130	2	30
Tetrachloroethene	0.0200	0.01996		mg/L		100	70 - 130	0	30
Toluene	0.0200	0.02062		mg/L		103	70 - 130	1	30
trans-1,2-Dichloroethene	0.0200	0.02023		mg/L		101	70 - 130	1	30
trans-1,3-Dichloropropene	0.0200	0.02164		mg/L		108	70 - 130	4	30
1,2,4-Trichlorobenzene	0.0200	0.02124		mg/L		106	70 - 130	3	30
1,1,1-Trichloroethane	0.0200	0.02128		mg/L		106	70 - 130	1	30
1,1,2-Trichloroethane	0.0200	0.02072		mg/L		104	70 - 130	3	30
Trichloroethene	0.0200	0.02031		mg/L		102	70 - 130	2	30
Trichlorofluoromethane	0.0200	0.01972		mg/L		99	70 - 130	2	30
1,2,3-Trichloropropane	0.0200	0.01983		mg/L		99	70 - 130	0	30
1,2,4-Trimethylbenzene	0.0200	0.02151		mg/L		108	70 - 130	0	30
1,3,5-Trimethylbenzene	0.0200	0.02016		mg/L		101	70 - 130	1	30
Vinyl chloride	0.0200	0.01941		mg/L		97	70 - 130	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*70 - 130*
1,2-Dichlorobenzene-d4	*105*		*70 - 130*

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-281165/6
Matrix: Water
Analysis Batch: 281165

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/19/13 12:24	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 12:24	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/19/13 12:24	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/19/13 12:24	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/19/13 12:24	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/19/13 12:24	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 12:24	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/19/13 12:24	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/19/13 12:24	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/19/13 12:24	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/19/13 12:24	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/19/13 12:24	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/19/13 12:24	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:24	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/19/13 12:24	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 12:24	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/19/13 12:24	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/19/13 12:24	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/19/13 12:24	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:24	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 12:24	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 12:24	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/19/13 12:24	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/19/13 12:24	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:24	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/19/13 12:24	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/19/13 12:24	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/19/13 12:24	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/19/13 12:24	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/19/13 12:24	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/19/13 12:24	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/19/13 12:24	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/19/13 12:24	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/19/13 12:24	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/19/13 12:24	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/19/13 12:24	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/19/13 12:24	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/19/13 12:24	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 12:24	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/19/13 12:24	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/19/13 12:24	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/19/13 12:24	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:24	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:24	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/19/13 12:24	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 12:24	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/19/13 12:24	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 12:24	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-281165/6
Matrix: Water
Analysis Batch: 281165

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/19/13 12:24	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/19/13 12:24	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/19/13 12:24	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/19/13 12:24	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/19/13 12:24	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/19/13 12:24	1
1,2,4-Trichlorobenzene	0.0002089	J	0.000500	0.000180	mg/L			06/19/13 12:24	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/19/13 12:24	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/19/13 12:24	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 12:24	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/19/13 12:24	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/19/13 12:24	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 12:24	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/19/13 12:24	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/19/13 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*70 - 130*		*06/19/13 12:24*	*1*
1,2-Dichlorobenzene-d4	*94*		*70 - 130*		*06/19/13 12:24*	*1*

Lab Sample ID: LCS 680-281165/3
Matrix: Water
Analysis Batch: 281165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0400	0.03863		mg/L		97	70 - 130
Benzene	0.0200	0.01965		mg/L		98	70 - 130
Bromobenzene	0.0200	0.02070		mg/L		103	70 - 130
Bromodichloromethane	0.0200	0.02028		mg/L		101	70 - 130
Bromoform	0.0200	0.02021		mg/L		101	70 - 130
Bromomethane	0.0200	0.01962		mg/L		98	70 - 130
2-Butanone (MEK)	0.0400	0.04306		mg/L		108	70 - 130
Carbon tetrachloride	0.0200	0.02135		mg/L		107	70 - 130
Chlorobenzene	0.0200	0.02023		mg/L		101	70 - 130
Chlorobromomethane	0.0200	0.02106		mg/L		105	70 - 130
Chloroethane	0.0200	0.01896		mg/L		95	70 - 130
Chloroform	0.0200	0.01996		mg/L		100	70 - 130
Chloromethane	0.0200	0.01830		mg/L		91	70 - 130
2-Chlorotoluene	0.0200	0.02070		mg/L		104	70 - 130
4-Chlorotoluene	0.0200	0.02105		mg/L		105	70 - 130
cis-1,2-Dichloroethene	0.0200	0.02011		mg/L		101	70 - 130
cis-1,3-Dichloropropene	0.0200	0.02028		mg/L		101	70 - 130
Dibromochloromethane	0.0200	0.02082		mg/L		104	70 - 130
1,2-Dibromo-3-Chloropropane	0.0200	0.02027		mg/L		101	70 - 130
1,2-Dichlorobenzene	0.0200	0.02079		mg/L		104	70 - 130
1,3-Dichlorobenzene	0.0200	0.02086		mg/L		104	70 - 130
1,4-Dichlorobenzene	0.0200	0.02064		mg/L		103	70 - 130
Dichlorodifluoromethane	0.0200	0.02040		mg/L		102	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-281165/3
Matrix: Water
Analysis Batch: 281165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0200	0.02208		mg/L		110	70 - 130
1,2-Dichloroethane	0.0200	0.02084		mg/L		104	70 - 130
1,1-Dichloroethene	0.0200	0.01925		mg/L		96	70 - 130
1,2-Dichloropropane	0.0200	0.02008		mg/L		100	70 - 130
1,3-Dichloropropane	0.0200	0.02032		mg/L		102	70 - 130
2,2-Dichloropropane	0.0200	0.02087		mg/L		104	70 - 130
1,1-Dichloropropene	0.0200	0.01993		mg/L		100	70 - 130
Ethylbenzene	0.0200	0.02055		mg/L		103	70 - 130
Ethylene Dibromide	0.0200	0.02097		mg/L		105	70 - 130
Freon 113	0.0160	0.01669		mg/L		104	70 - 130
Hexachlorobutadiene	0.0200	0.02112		mg/L		106	70 - 130
2-Hexanone	0.0400	0.04088		mg/L		102	70 - 130
Isopropylbenzene	0.0200	0.02079		mg/L		104	70 - 130
Methylene bromide	0.0200	0.01992		mg/L		100	70 - 130
Methylene Chloride	0.0200	0.01950		mg/L		98	70 - 130
4-Methyl-2-pentanone (MIBK)	0.0400	0.04126		mg/L		103	70 - 130
Methyl tert-butyl ether	0.0160	0.01648		mg/L		103	70 - 130
m-Xylene & p-Xylene	0.0400	0.04071		mg/L		102	70 - 130
Naphthalene	0.0200	0.02048		mg/L		102	70 - 130
n-Butylbenzene	0.0200	0.02030		mg/L		102	70 - 130
N-Propylbenzene	0.0200	0.02059		mg/L		103	70 - 130
o-Xylene	0.0200	0.02080		mg/L		104	70 - 130
sec-Butylbenzene	0.0200	0.02113		mg/L		106	70 - 130
Styrene	0.0200	0.02123		mg/L		106	70 - 130
tert-Butylbenzene	0.0200	0.02118		mg/L		106	70 - 130
1,1,1,2-Tetrachloroethane	0.0200	0.02054		mg/L		103	70 - 130
1,1,2,2-Tetrachloroethane	0.0200	0.02178		mg/L		109	70 - 130
Tetrachloroethene	0.0200	0.01891		mg/L		95	70 - 130
Toluene	0.0200	0.02025		mg/L		101	70 - 130
trans-1,2-Dichloroethene	0.0200	0.01953		mg/L		98	70 - 130
trans-1,3-Dichloropropene	0.0200	0.02029		mg/L		101	70 - 130
1,2,4-Trichlorobenzene	0.0200	0.02028		mg/L		101	70 - 130
1,1,1-Trichloroethane	0.0200	0.02025		mg/L		101	70 - 130
1,1,2-Trichloroethane	0.0200	0.02058		mg/L		103	70 - 130
Trichloroethene	0.0200	0.01935		mg/L		97	70 - 130
Trichlorofluoromethane	0.0200	0.02011		mg/L		101	70 - 130
1,2,3-Trichloropropane	0.0200	0.02105		mg/L		105	70 - 130
1,2,4-Trimethylbenzene	0.0200	0.02134		mg/L		107	70 - 130
1,3,5-Trimethylbenzene	0.0200	0.02116		mg/L		106	70 - 130
Vinyl chloride	0.0200	0.01833		mg/L		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*70 - 130*
1,2-Dichlorobenzene-d4	*106*		*70 - 130*

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-281165/4
Matrix: Water
Analysis Batch: 281165

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0400	0.04146		mg/L		104	70 - 130	7	30
Benzene	0.0200	0.02070		mg/L		104	70 - 130	5	30
Bromobenzene	0.0200	0.02135		mg/L		107	70 - 130	3	30
Bromodichloromethane	0.0200	0.02106		mg/L		105	70 - 130	4	30
Bromoform	0.0200	0.02076		mg/L		104	70 - 130	3	30
Bromomethane	0.0200	0.02027		mg/L		101	70 - 130	3	30
2-Butanone (MEK)	0.0400	0.04545		mg/L		114	70 - 130	5	30
Carbon tetrachloride	0.0200	0.02230		mg/L		112	70 - 130	4	30
Chlorobenzene	0.0200	0.02086		mg/L		104	70 - 130	3	30
Chlorobromomethane	0.0200	0.02193		mg/L		110	70 - 130	4	30
Chloroethane	0.0200	0.01866		mg/L		93	70 - 130	2	30
Chloroform	0.0200	0.02113		mg/L		106	70 - 130	6	30
Chloromethane	0.0200	0.01918		mg/L		96	70 - 130	5	30
2-Chlorotoluene	0.0200	0.02168		mg/L		108	70 - 130	5	30
4-Chlorotoluene	0.0200	0.02149		mg/L		107	70 - 130	2	30
cis-1,2-Dichloroethene	0.0200	0.02102		mg/L		105	70 - 130	4	30
cis-1,3-Dichloropropene	0.0200	0.02164		mg/L		108	70 - 130	6	30
Dibromochloromethane	0.0200	0.02198		mg/L		110	70 - 130	5	30
1,2-Dibromo-3-Chloropropane	0.0200	0.02178		mg/L		109	70 - 130	7	30
1,2-Dichlorobenzene	0.0200	0.02177		mg/L		109	70 - 130	5	30
1,3-Dichlorobenzene	0.0200	0.02143		mg/L		107	70 - 130	3	30
1,4-Dichlorobenzene	0.0200	0.02188		mg/L		109	70 - 130	6	30
Dichlorodifluoromethane	0.0200	0.02181		mg/L		109	70 - 130	7	30
1,1-Dichloroethane	0.0200	0.02313		mg/L		116	70 - 130	5	30
1,2-Dichloroethane	0.0200	0.02193		mg/L		110	70 - 130	5	30
1,1-Dichloroethene	0.0200	0.01986		mg/L		99	70 - 130	3	30
1,2-Dichloropropane	0.0200	0.02106		mg/L		105	70 - 130	5	30
1,3-Dichloropropane	0.0200	0.02142		mg/L		107	70 - 130	5	30
2,2-Dichloropropane	0.0200	0.02192		mg/L		110	70 - 130	5	30
1,1-Dichloropropene	0.0200	0.02056		mg/L		103	70 - 130	3	30
Ethylbenzene	0.0200	0.02132		mg/L		107	70 - 130	4	30
Ethylene Dibromide	0.0200	0.02185		mg/L		109	70 - 130	4	30
Freon 113	0.0160	0.01683		mg/L		105	70 - 130	1	30
Hexachlorobutadiene	0.0200	0.02253		mg/L		113	70 - 130	6	30
2-Hexanone	0.0400	0.04443		mg/L		111	70 - 130	8	30
Isopropylbenzene	0.0200	0.02143		mg/L		107	70 - 130	3	30
Methylene bromide	0.0200	0.02139		mg/L		107	70 - 130	7	30
Methylene Chloride	0.0200	0.02050		mg/L		103	70 - 130	5	30
4-Methyl-2-pentanone (MIBK)	0.0400	0.04370		mg/L		109	70 - 130	6	30
Methyl tert-butyl ether	0.0160	0.01758		mg/L		110	70 - 130	6	30
m-Xylene & p-Xylene	0.0400	0.04238		mg/L		106	70 - 130	4	30
Naphthalene	0.0200	0.02145		mg/L		107	70 - 130	5	30
n-Butylbenzene	0.0200	0.02139		mg/L		107	70 - 130	5	30
N-Propylbenzene	0.0200	0.02158		mg/L		108	70 - 130	5	30
o-Xylene	0.0200	0.02158		mg/L		108	70 - 130	4	30
sec-Butylbenzene	0.0200	0.02202		mg/L		110	70 - 130	4	30
Styrene	0.0200	0.02234		mg/L		112	70 - 130	5	30
tert-Butylbenzene	0.0200	0.02216		mg/L		111	70 - 130	5	30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-281165/4
Matrix: Water
Analysis Batch: 281165

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			0.0200	0.02222		mg/L		111	70 - 130	8	30
1,1,2,2-Tetrachloroethane			0.0200	0.02307		mg/L		115	70 - 130	6	30
Tetrachloroethene			0.0200	0.01978		mg/L		99	70 - 130	5	30
Toluene			0.0200	0.02107		mg/L		105	70 - 130	4	30
trans-1,2-Dichloroethene			0.0200	0.02074		mg/L		104	70 - 130	6	30
trans-1,3-Dichloropropene			0.0200	0.02145		mg/L		107	70 - 130	6	30
1,2,4-Trichlorobenzene			0.0200	0.02133		mg/L		107	70 - 130	5	30
1,1,1-Trichloroethane			0.0200	0.02174		mg/L		109	70 - 130	7	30
1,1,2-Trichloroethane			0.0200	0.02226		mg/L		111	70 - 130	8	30
Trichloroethene			0.0200	0.01979		mg/L		99	70 - 130	2	30
Trichlorofluoromethane			0.0200	0.02101		mg/L		105	70 - 130	4	30
1,2,3-Trichloropropane			0.0200	0.02320		mg/L		116	70 - 130	10	30
1,2,4-Trimethylbenzene			0.0200	0.02236		mg/L		112	70 - 130	5	30
1,3,5-Trimethylbenzene			0.0200	0.02191		mg/L		110	70 - 130	3	30
Vinyl chloride			0.0200	0.01905		mg/L		95	70 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*70 - 130*
1,2-Dichlorobenzene-d4	*109*		*70 - 130*

QC Association Summary

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

GC/MS VOA

Analysis Batch: 281025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-91077-1	GW-16	Total/NA	Water	524.2	
680-91077-2	GW-25	Total/NA	Water	524.2	
680-91077-3	GW-9	Total/NA	Water	524.2	
LCS 680-281025/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 680-281025/4	Lab Control Sample Dup	Total/NA	Water	524.2	
MB 680-281025/6	Method Blank	Total/NA	Water	524.2	

Analysis Batch: 281026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-91077-4	GW-1	Total/NA	Water	524.2	
680-91077-6	GW-99	Total/NA	Water	524.2	
680-91077-9	FB-2	Total/NA	Water	524.2	
LCS 680-281026/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 680-281026/4	Lab Control Sample Dup	Total/NA	Water	524.2	
MB 680-281026/6	Method Blank	Total/NA	Water	524.2	

Analysis Batch: 281165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-91077-5	GW-12	Total/NA	Water	524.2	
680-91077-7	GW-13	Total/NA	Water	524.2	
680-91077-8	GW-11	Total/NA	Water	524.2	
680-91077-10	GW-26	Total/NA	Water	524.2	
680-91077-11	Trip Blank	Total/NA	Water	524.2	
LCS 680-281165/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 680-281165/4	Lab Control Sample Dup	Total/NA	Water	524.2	
MB 680-281165/6	Method Blank	Total/NA	Water	524.2	

Lab Chronicle

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Client Sample ID: GW-16 — Lab Sample ID: 680-91077-1

Date Collected: 06/05/13 09:22 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281025	06/18/13 17:13	AGM	TAL SAV

Client Sample ID: GW-25 — Lab Sample ID: 680-91077-2

Date Collected: 06/05/13 10:30 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281025	06/18/13 17:35	AGM	TAL SAV

Client Sample ID: GW-9 — Lab Sample ID: 680-91077-3

Date Collected: 06/05/13 11:23 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281025	06/18/13 17:58	AGM	TAL SAV

Client Sample ID: GW-1 — Lab Sample ID: 680-91077-4

Date Collected: 06/05/13 12:02 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281026	06/18/13 16:44	AGM	TAL SAV

Client Sample ID: GW-12 — Lab Sample ID: 680-91077-5

Date Collected: 06/05/13 12:40 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281165	06/19/13 12:47	WJC	TAL SAV

Client Sample ID: GW-99 — Lab Sample ID: 680-91077-6

Date Collected: 06/05/13 13:00 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281026	06/18/13 17:38	AGM	TAL SAV

Lab Chronicle

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Client Sample ID: GW-13 — Lab Sample ID: 680-91077-7

Date Collected: 06/05/13 13:30 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281165	06/19/13 13:09	WJC	TAL SAV

Client Sample ID: GW-11 — Lab Sample ID: 680-91077-8

Date Collected: 06/05/13 13:53 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281165	06/19/13 13:31	WJC	TAL SAV

Client Sample ID: FB-2 — Lab Sample ID: 680-91077-9

Date Collected: 06/05/13 14:40 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281026	06/18/13 18:59	AGM	TAL SAV

Client Sample ID: GW-26 — Lab Sample ID: 680-91077-10

Date Collected: 06/05/13 14:55 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281165	06/19/13 13:54	WJC	TAL SAV

Client Sample ID: Trip Blank — Lab Sample ID: 680-91077-11

Date Collected: 06/05/13 00:00 — **Matrix: Water**
Date Received: 06/06/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281165	06/19/13 14:16	WJC	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 68969

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)	PAGE 1 OF 1
Kermit PWS	1486519	TX	
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.	
CLIENT (SITE) PM: Kim Wallace-Wymore	CLIENT PHONE: 972-315-3922	CLIENT FAX: 315-5161	
CLIENT NAME: EA Engineering	CLIENT E-MAIL		
CLIENT ADDRESS: 405 Settlers Way 121 C-100, Lewisville, TX 75067			
COMPANY CONTRACTING THIS WORK (if applicable): TCEQ			

STANDARD REPORT DELIVERY ◯ DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯ DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX TYPE: AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: NDC 524.2	NUMBER OF CONTAINERS SUBMITTED	REMARKS
6-5-13	0922	GW-16		✓					3	
	1030	GW-25		✓					3	
	1123	GW-9		✓					3	
	1202	GW-1		✓					3	
	1240	GW-12		✓					3	
	1300	GW-99		✓					3	
	1330	GW-13		✓					3	
	1353	GW-11		✓					3	
	1440	FB-2		✓					3	
	1455	GW-26		✓					3	
—	—	Trip Blank		✓					2	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	6-5-13	1800						
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
Fed Ex 8022 2246 7484								

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	06/06/13	0930	YES ◯ NO ◯		680-91077	68011240 2.6°C

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: EA Engineering, Science, and Technology

Job Number: 680-91077-1
SDG Number: 68091077-1

Login Number: 91077
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: EA Engineering, Science, and Technology
Project/Site: Kermit PWS/1486519

TestAmerica Job ID: 680-91077-1
SDG: 68091077-1

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		399.01	07-31-13
Alabama	State Program	4	41450	06-30-13
Arkansas DEQ	State Program	6	88-0692	02-01-14 *
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-13
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13 *
Kentucky	State Program	4	90084	12-31-12 *
Kentucky (UST)	State Program	4	18	03-31-13 *
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13 *
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-13 *
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	09-30-13
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

* Expired certification is currently pending renewal and is considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-91116-1
TestAmerica Sample Delivery Group: 68091116-1
Client Project/Site: TCEQ AIRS - Kermit, TX

For:
EA Engineering, Science, and Technology
405 S. Highway 121 bypass
Building C
Suite 100
Lewisville, Texas 75067

Attn: Kimberly Wallace-Wymore

Authorized for release by:
6/24/2013 3:15:50 PM

Sheila Hoffman, Project Manager I
sheila.hoffman@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 680-91116-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: EA Engineering, Science, and Technology

Project: TCEQ AIRS - Kermit, TX

Report Number: 680-91116-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 06/07/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.2 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples FB-3 (680-91116-1), GW-27 (680-91116-2), GW-28 (680-91116-3), GW-14 (680-91116-4), GW-7 (680-91116-5) and Trip Blank (680-91116-6) were analyzed for Volatile organic Compounds (GC-MS) in accordance with EPA Method 524.2. The samples were analyzed on 06/20/2013.

2,2-Dichloropropane and Naphthalene failed the recovery criteria low for the MS of sample GW-27ms(680-91116-2) in batch 680-281270. The associated laboratory control sample (LCS) recovery met acceptance criteria.

2,2-Dichloropropane failed the recovery criteria low for the MSD of sample GW-27MSD (680-91116-2) in batch 680-281270. Naphthalene exceeded the RPD limit. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

Sample Summary

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-91116-1	FB-3	Water	06/06/13 10:50	06/07/13 09:45
680-91116-2	GW-27	Water	06/06/13 11:15	06/07/13 09:45
680-91116-3	GW-28	Water	06/06/13 12:01	06/07/13 09:45
680-91116-4	GW-14	Water	06/06/13 12:40	06/07/13 09:45
680-91116-5	GW-7	Water	06/06/13 13:30	06/07/13 09:45
680-91116-6	Trip Blank	Water	06/06/13 00:00	06/07/13 09:45

Method Summary

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL SAV

Protocol References:

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Definitions/Glossary

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
N	RPD of the MS and MSD exceeds the control limits
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Client Sample ID: FB-3

Date Collected: 06/06/13 10:50
Date Received: 06/07/13 09:45

Lab Sample ID: 680-91116-1

Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:01	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:01	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:01	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 01:01	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:01	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 01:01	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:01	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:01	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:01	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:01	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 01:01	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/20/13 01:01	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:01	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:01	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:01	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:01	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:01	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:01	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:01	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:01	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:01	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:01	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 01:01	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:01	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:01	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:01	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 01:01	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:01	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/20/13 01:01	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 01:01	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 01:01	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 01:01	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:01	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:01	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:01	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:01	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 01:01	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 01:01	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:01	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:01	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:01	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/20/13 01:01	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:01	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:01	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:01	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:01	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 01:01	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:01	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:01	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Client Sample ID: FB-3

Lab Sample ID: 680-91116-1
Date Collected: 06/06/13 10:50
Matrix: Water
Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:01	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:01	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:01	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 01:01	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 01:01	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:01	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:01	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:01	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:01	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:01	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:01	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:01	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:01	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*70 - 130*		*06/20/13 01:01*	*1*
1,2-Dichlorobenzene-d4	*84*		*70 - 130*		*06/20/13 01:01*	*1*

Client Sample ID: GW-27

Lab Sample ID: 680-91116-2
Date Collected: 06/06/13 11:15
Matrix: Water
Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:24	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:24	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 01:24	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:24	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 01:24	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:24	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:24	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:24	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:24	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 01:24	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/20/13 01:24	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:24	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:24	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:24	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:24	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:24	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:24	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:24	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 01:24	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:24	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1

Client Sample ID: GW-27

Lab Sample ID: 680-91116-2

Date Collected: 06/06/13 11:15

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:24	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 01:24	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:24	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/20/13 01:24	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 01:24	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 01:24	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 01:24	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:24	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:24	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:24	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:24	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 01:24	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 01:24	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:24	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:24	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:24	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/20/13 01:24	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:24	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:24	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 01:24	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:24	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:24	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:24	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:24	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 01:24	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 01:24	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:24	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:24	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:24	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:24	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:24	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*70 - 130*		*06/20/13 01:24*	*1*
1,2-Dichlorobenzene-d4	*88*		*70 - 130*		*06/20/13 01:24*	*1*

Client Sample ID: GW-28

Lab Sample ID: 680-91116-3

Date Collected: 06/06/13 12:01

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:46	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Client Sample ID: GW-28

Lab Sample ID: 680-91116-3

Date Collected: 06/06/13 12:01
Matrix: Water
Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:46	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 01:46	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:46	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 01:46	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:46	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:46	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:46	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:46	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 01:46	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/20/13 01:46	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:46	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:46	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:46	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:46	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:46	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:46	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:46	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 01:46	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:46	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:46	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 01:46	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:46	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/20/13 01:46	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 01:46	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 01:46	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 01:46	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:46	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:46	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:46	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:46	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 01:46	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 01:46	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:46	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:46	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:46	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/20/13 01:46	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:46	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:46	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 01:46	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:46	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:46	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1

Client Sample ID: GW-28

Lab Sample ID: 680-91116-3

Date Collected: 06/06/13 12:01

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:46	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:46	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 01:46	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 01:46	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:46	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:46	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:46	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:46	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:46	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*70 - 130*		*06/20/13 01:46*	*1*
1,2-Dichlorobenzene-d4	*85*		*70 - 130*		*06/20/13 01:46*	*1*

Client Sample ID: GW-14

Lab Sample ID: 680-91116-4

Date Collected: 06/06/13 12:40

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:08	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:08	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 02:08	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:08	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 02:08	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:08	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:08	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:08	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:08	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 02:08	1
Chloroform	**0.000653**		0.000500	0.000290	mg/L			06/20/13 02:08	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:08	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:08	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:08	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:08	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:08	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:08	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:08	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 02:08	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:08	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:08	1

Client Sample ID: GW-14

Lab Sample ID: 680-91116-4

Date Collected: 06/06/13 12:40

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 02:08	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:08	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/20/13 02:08	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 02:08	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 02:08	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 02:08	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:08	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:08	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:08	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:08	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 02:08	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 02:08	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:08	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:08	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:08	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/20/13 02:08	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:08	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:08	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 02:08	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:08	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:08	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
Tetrachloroethene	**0.000429**	**J**	0.000500	0.000300	mg/L			06/20/13 02:08	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:08	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 02:08	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 02:08	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:08	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:08	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:08	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:08	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:08	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 02:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*70 - 130*		*06/20/13 02:08*	*1*
1,2-Dichlorobenzene-d4	*85*		*70 - 130*		*06/20/13 02:08*	*1*

Client Sample ID: GW-7

Lab Sample ID: 680-91116-5

Date Collected: 06/06/13 13:30

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:31	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1

Client Sample ID: GW-7
Date Collected: 06/06/13 13:30
Date Received: 06/07/13 09:45

Lab Sample ID: 680-91116-5
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:31	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 02:31	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:31	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 02:31	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:31	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:31	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:31	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:31	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 02:31	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/20/13 02:31	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:31	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:31	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:31	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:31	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:31	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:31	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:31	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 02:31	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:31	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:31	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 02:31	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:31	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/20/13 02:31	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 02:31	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 02:31	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 02:31	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:31	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:31	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:31	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:31	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 02:31	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 02:31	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:31	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:31	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:31	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/20/13 02:31	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:31	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:31	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 02:31	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:31	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:31	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:31	1

Client Sample ID: GW-7

Lab Sample ID: 680-91116-5

Date Collected: 06/06/13 13:30

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:31	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 02:31	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 02:31	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:31	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:31	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:31	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:31	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:31	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 02:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*70 - 130*		*06/20/13 02:31*	*1*
1,2-Dichlorobenzene-d4	*86*		*70 - 130*		*06/20/13 02:31*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 680-91116-6

Date Collected: 06/06/13 00:00

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:53	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:53	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:53	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 02:53	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:53	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 02:53	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:53	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:53	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:53	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:53	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 02:53	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/20/13 02:53	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:53	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:53	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:53	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:53	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:53	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:53	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:53	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:53	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:53	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:53	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 02:53	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:53	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:53	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:53	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 02:53	1

Client Sample Results

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-91116-6

Date Collected: 06/06/13 00:00
Matrix: Water
Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:53	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/20/13 02:53	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 02:53	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 02:53	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 02:53	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:53	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:53	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:53	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:53	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 02:53	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 02:53	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:53	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:53	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:53	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/20/13 02:53	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:53	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:53	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:53	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:53	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 02:53	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:53	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:53	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:53	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:53	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:53	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 02:53	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 02:53	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:53	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:53	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:53	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:53	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:53	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:53	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:53	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:53	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*70 - 130*		*06/20/13 02:53*	*1*
1,2-Dichlorobenzene-d4	*86*		*70 - 130*		*06/20/13 02:53*	*1*

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB (70-130)	12DCB (70-130)						
680-91116-1	FB-3	90	84						
680-91116-2	GW-27	89	88						
680-91116-2 MS	GW-27	103	102						
680-91116-2 MSD	GW-27	101	105						
680-91116-3	GW-28	89	85						
680-91116-4	GW-14	90	85						
680-91116-5	GW-7	92	86						
680-91116-6	Trip Blank	89	86						
LCS 680-281270/3	Lab Control Sample	105	107						
LCSD 680-281270/4	Lab Control Sample Dup	104	107						
MB 680-281270/6	Method Blank	94	86						

Surrogate Legend

BFB = 4-Bromofluorobenzene

12DCB = 1,2-Dichlorobenzene-d4

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-281270/6
Matrix: Water
Analysis Batch: 281270

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/19/13 23:32	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 23:32	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/19/13 23:32	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/19/13 23:32	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/19/13 23:32	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/19/13 23:32	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 23:32	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/19/13 23:32	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/19/13 23:32	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/19/13 23:32	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/19/13 23:32	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/19/13 23:32	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/19/13 23:32	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/19/13 23:32	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/19/13 23:32	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 23:32	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/19/13 23:32	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/19/13 23:32	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/19/13 23:32	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 23:32	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 23:32	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 23:32	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/19/13 23:32	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/19/13 23:32	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/19/13 23:32	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/19/13 23:32	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/19/13 23:32	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/19/13 23:32	1
2,2-Dichloropropane	<0.000310		0.000500	0.000310	mg/L			06/19/13 23:32	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/19/13 23:32	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/19/13 23:32	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/19/13 23:32	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/19/13 23:32	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/19/13 23:32	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/19/13 23:32	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/19/13 23:32	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/19/13 23:32	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/19/13 23:32	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/19/13 23:32	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/19/13 23:32	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/19/13 23:32	1
Naphthalene	<0.000430		0.00100	0.000430	mg/L			06/19/13 23:32	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 23:32	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 23:32	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/19/13 23:32	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 23:32	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/19/13 23:32	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/19/13 23:32	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-281270/6
Matrix: Water
Analysis Batch: 281270

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/19/13 23:32	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/19/13 23:32	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/19/13 23:32	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/19/13 23:32	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/19/13 23:32	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/19/13 23:32	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/19/13 23:32	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/19/13 23:32	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/19/13 23:32	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/19/13 23:32	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/19/13 23:32	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/19/13 23:32	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/19/13 23:32	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/19/13 23:32	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/19/13 23:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*70 - 130*		*06/19/13 23:32*	*1*
1,2-Dichlorobenzene-d4	*86*		*70 - 130*		*06/19/13 23:32*	*1*

Lab Sample ID: LCS 680-281270/3
Matrix: Water
Analysis Batch: 281270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0400	0.04078		mg/L		102	70 - 130
Benzene	0.0200	0.02028		mg/L		101	70 - 130
Bromobenzene	0.0200	0.02126		mg/L		106	70 - 130
Bromodichloromethane	0.0200	0.02088		mg/L		104	70 - 130
Bromoform	0.0200	0.02108		mg/L		105	70 - 130
Bromomethane	0.0200	0.01898		mg/L		95	70 - 130
2-Butanone (MEK)	0.0400	0.04397		mg/L		110	70 - 130
Carbon tetrachloride	0.0200	0.02225		mg/L		111	70 - 130
Chlorobenzene	0.0200	0.02062		mg/L		103	70 - 130
Chlorobromomethane	0.0200	0.02181		mg/L		109	70 - 130
Chloroethane	0.0200	0.01880		mg/L		94	70 - 130
Chloroform	0.0200	0.02045		mg/L		102	70 - 130
Chloromethane	0.0200	0.01855		mg/L		93	70 - 130
2-Chlorotoluene	0.0200	0.02146		mg/L		107	70 - 130
4-Chlorotoluene	0.0200	0.02114		mg/L		106	70 - 130
cis-1,2-Dichloroethene	0.0200	0.02040		mg/L		102	70 - 130
cis-1,3-Dichloropropene	0.0200	0.02084		mg/L		104	70 - 130
Dibromochloromethane	0.0200	0.02193		mg/L		110	70 - 130
1,2-Dibromo-3-Chloropropane	0.0200	0.02130		mg/L		107	70 - 130
1,2-Dichlorobenzene	0.0200	0.02164		mg/L		108	70 - 130
1,3-Dichlorobenzene	0.0200	0.02132		mg/L		107	70 - 130
1,4-Dichlorobenzene	0.0200	0.02158		mg/L		108	70 - 130
Dichlorodifluoromethane	0.0200	0.02037		mg/L		102	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-281270/3
Matrix: Water
Analysis Batch: 281270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0200	0.02271		mg/L		114	70 - 130
1,2-Dichloroethane	0.0200	0.02143		mg/L		107	70 - 130
1,1-Dichloroethene	0.0200	0.01890		mg/L		94	70 - 130
1,2-Dichloropropane	0.0200	0.02054		mg/L		103	70 - 130
1,3-Dichloropropane	0.0200	0.02126		mg/L		106	70 - 130
2,2-Dichloropropane	0.0200	0.02145		mg/L		107	70 - 130
1,1-Dichloropropene	0.0200	0.01990		mg/L		100	70 - 130
Ethylbenzene	0.0200	0.02087		mg/L		104	70 - 130
Ethylene Dibromide	0.0200	0.02142		mg/L		107	70 - 130
Freon 113	0.0160	0.01597		mg/L		100	70 - 130
Hexachlorobutadiene	0.0200	0.02240		mg/L		112	70 - 130
2-Hexanone	0.0400	0.04349		mg/L		109	70 - 130
Isopropylbenzene	0.0200	0.02126		mg/L		106	70 - 130
Methylene bromide	0.0200	0.02087		mg/L		104	70 - 130
Methylene Chloride	0.0200	0.02024		mg/L		101	70 - 130
4-Methyl-2-pentanone (MIBK)	0.0400	0.04325		mg/L		108	70 - 130
Methyl tert-butyl ether	0.0160	0.01685		mg/L		105	70 - 130
m-Xylene & p-Xylene	0.0400	0.04147		mg/L		104	70 - 130
Naphthalene	0.0200	0.02138		mg/L		107	70 - 130
n-Butylbenzene	0.0200	0.02098		mg/L		105	70 - 130
N-Propylbenzene	0.0200	0.02090		mg/L		104	70 - 130
o-Xylene	0.0200	0.02149		mg/L		107	70 - 130
sec-Butylbenzene	0.0200	0.02169		mg/L		108	70 - 130
Styrene	0.0200	0.02215		mg/L		111	70 - 130
tert-Butylbenzene	0.0200	0.02163		mg/L		108	70 - 130
1,1,1,2-Tetrachloroethane	0.0200	0.02168		mg/L		108	70 - 130
1,1,2,2-Tetrachloroethane	0.0200	0.02267		mg/L		113	70 - 130
Tetrachloroethene	0.0200	0.01951		mg/L		98	70 - 130
Toluene	0.0200	0.02079		mg/L		104	70 - 130
trans-1,2-Dichloroethene	0.0200	0.01989		mg/L		99	70 - 130
trans-1,3-Dichloropropene	0.0200	0.02089		mg/L		104	70 - 130
1,2,4-Trichlorobenzene	0.0200	0.02100		mg/L		105	70 - 130
1,1,1-Trichloroethane	0.0200	0.02084		mg/L		104	70 - 130
1,1,2-Trichloroethane	0.0200	0.02168		mg/L		108	70 - 130
Trichloroethene	0.0200	0.01964		mg/L		98	70 - 130
Trichlorofluoromethane	0.0200	0.01983		mg/L		99	70 - 130
1,2,3-Trichloropropane	0.0200	0.02259		mg/L		113	70 - 130
1,2,4-Trimethylbenzene	0.0200	0.02170		mg/L		109	70 - 130
1,3,5-Trimethylbenzene	0.0200	0.02197		mg/L		110	70 - 130
Vinyl chloride	0.0200	0.01748		mg/L		87	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*70 - 130*
1,2-Dichlorobenzene-d4	*107*		*70 - 130*

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-281270/4
Matrix: Water
Analysis Batch: 281270

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0400	0.04237		mg/L		106	70 - 130	4	30
Benzene	0.0200	0.01998		mg/L		100	70 - 130	1	30
Bromobenzene	0.0200	0.02115		mg/L		106	70 - 130	1	30
Bromodichloromethane	0.0200	0.02111		mg/L		106	70 - 130	1	30
Bromoform	0.0200	0.02230		mg/L		111	70 - 130	6	30
Bromomethane	0.0200	0.01834		mg/L		92	70 - 130	3	30
2-Butanone (MEK)	0.0400	0.04757		mg/L		119	70 - 130	8	30
Carbon tetrachloride	0.0200	0.02163		mg/L		108	70 - 130	3	30
Chlorobenzene	0.0200	0.02082		mg/L		104	70 - 130	1	30
Chlorobromomethane	0.0200	0.02193		mg/L		110	70 - 130	1	30
Chloroethane	0.0200	0.01753		mg/L		88	70 - 130	7	30
Chloroform	0.0200	0.02053		mg/L		103	70 - 130	0	30
Chloromethane	0.0200	0.01785		mg/L		89	70 - 130	4	30
2-Chlorotoluene	0.0200	0.02088		mg/L		104	70 - 130	3	30
4-Chlorotoluene	0.0200	0.02104		mg/L		105	70 - 130	0	30
cis-1,2-Dichloroethene	0.0200	0.02042		mg/L		102	70 - 130	0	30
cis-1,3-Dichloropropene	0.0200	0.02144		mg/L		107	70 - 130	3	30
Dibromochloromethane	0.0200	0.02218		mg/L		111	70 - 130	1	30
1,2-Dibromo-3-Chloropropane	0.0200	0.02405		mg/L		120	70 - 130	12	30
1,2-Dichlorobenzene	0.0200	0.02132		mg/L		107	70 - 130	2	30
1,3-Dichlorobenzene	0.0200	0.02088		mg/L		104	70 - 130	2	30
1,4-Dichlorobenzene	0.0200	0.02154		mg/L		108	70 - 130	0	30
Dichlorodifluoromethane	0.0200	0.02003		mg/L		100	70 - 130	2	30
1,1-Dichloroethane	0.0200	0.02272		mg/L		114	70 - 130	0	30
1,2-Dichloroethane	0.0200	0.02159		mg/L		108	70 - 130	1	30
1,1-Dichloroethene	0.0200	0.01853		mg/L		93	70 - 130	2	30
1,2-Dichloropropane	0.0200	0.02094		mg/L		105	70 - 130	2	30
1,3-Dichloropropane	0.0200	0.02145		mg/L		107	70 - 130	1	30
2,2-Dichloropropane	0.0200	0.02075		mg/L		104	70 - 130	3	30
1,1-Dichloropropene	0.0200	0.01973		mg/L		99	70 - 130	1	30
Ethylbenzene	0.0200	0.02097		mg/L		105	70 - 130	1	30
Ethylene Dibromide	0.0200	0.02189		mg/L		109	70 - 130	2	30
Freon 113	0.0160	0.01579		mg/L		99	70 - 130	1	30
Hexachlorobutadiene	0.0200	0.02049		mg/L		102	70 - 130	9	30
2-Hexanone	0.0400	0.04501		mg/L		113	70 - 130	3	30
Isopropylbenzene	0.0200	0.02110		mg/L		105	70 - 130	1	30
Methylene bromide	0.0200	0.02114		mg/L		106	70 - 130	1	30
Methylene Chloride	0.0200	0.01997		mg/L		100	70 - 130	1	30
4-Methyl-2-pentanone (MIBK)	0.0400	0.04443		mg/L		111	70 - 130	3	30
Methyl tert-butyl ether	0.0160	0.01744		mg/L		109	70 - 130	3	30
m-Xylene & p-Xylene	0.0400	0.04149		mg/L		104	70 - 130	0	30
Naphthalene	0.0200	0.02203		mg/L		110	70 - 130	3	30
n-Butylbenzene	0.0200	0.01986		mg/L		99	70 - 130	5	30
N-Propylbenzene	0.0200	0.02069		mg/L		103	70 - 130	1	30
o-Xylene	0.0200	0.02108		mg/L		105	70 - 130	2	30
sec-Butylbenzene	0.0200	0.02114		mg/L		106	70 - 130	3	30
Styrene	0.0200	0.02167		mg/L		108	70 - 130	2	30
tert-Butylbenzene	0.0200	0.02110		mg/L		105	70 - 130	3	30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-281270/4
Matrix: Water
Analysis Batch: 281270

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.0200	0.02155		mg/L		108	70 - 130	1	30
1,1,2,2-Tetrachloroethane	0.0200	0.02345		mg/L		117	70 - 130	3	30
Tetrachloroethene	0.0200	0.01883		mg/L		94	70 - 130	4	30
Toluene	0.0200	0.02073		mg/L		104	70 - 130	0	30
trans-1,2-Dichloroethene	0.0200	0.01995		mg/L		100	70 - 130	0	30
trans-1,3-Dichloropropene	0.0200	0.02135		mg/L		107	70 - 130	2	30
1,2,4-Trichlorobenzene	0.0200	0.02040		mg/L		102	70 - 130	3	30
1,1,1-Trichloroethane	0.0200	0.02063		mg/L		103	70 - 130	1	30
1,1,2-Trichloroethane	0.0200	0.02190		mg/L		110	70 - 130	1	30
Trichloroethene	0.0200	0.01947		mg/L		97	70 - 130	1	30
Trichlorofluoromethane	0.0200	0.01922		mg/L		96	70 - 130	3	30
1,2,3-Trichloropropane	0.0200	0.02262		mg/L		113	70 - 130	0	30
1,2,4-Trimethylbenzene	0.0200	0.02165		mg/L		108	70 - 130	0	30
1,3,5-Trimethylbenzene	0.0200	0.02149		mg/L		107	70 - 130	2	30
Vinyl chloride	0.0200	0.01751		mg/L		88	70 - 130	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*70 - 130*
1,2-Dichlorobenzene-d4	*107*		*70 - 130*

Lab Sample ID: 680-91116-2 MS
Matrix: Water
Analysis Batch: 281270

Client Sample ID: GW-27
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<0.00500		0.0400	0.03057		mg/L		76	70 - 130
Benzene	<0.000180		0.0200	0.01879		mg/L		94	70 - 130
Bromobenzene	<0.000420		0.0200	0.01920		mg/L		96	70 - 130
Bromodichloromethane	<0.000100		0.0200	0.01882		mg/L		94	70 - 130
Bromoform	<0.000390		0.0200	0.01761		mg/L		88	70 - 130
Bromomethane	<0.000450		0.0200	0.02243		mg/L		112	70 - 130
2-Butanone (MEK)	<0.00500		0.0400	0.03381		mg/L		85	70 - 130
Carbon tetrachloride	<0.000220		0.0200	0.02064		mg/L		103	70 - 130
Chlorobenzene	<0.000270		0.0200	0.01915		mg/L		96	70 - 130
Chlorobromomethane	<0.000300		0.0200	0.01952		mg/L		98	70 - 130
Chloroethane	<0.000330		0.0200	0.02199		mg/L		110	70 - 130
Chloroform	<0.000290		0.0200	0.01898		mg/L		95	70 - 130
Chloromethane	<0.000320		0.0200	0.01842		mg/L		92	70 - 130
2-Chlorotoluene	<0.000170		0.0200	0.01944		mg/L		97	70 - 130
4-Chlorotoluene	<0.000160		0.0200	0.01951		mg/L		98	70 - 130
cis-1,2-Dichloroethene	<0.000370		0.0200	0.01894		mg/L		95	70 - 130
cis-1,3-Dichloropropene	<0.000320		0.0200	0.01799		mg/L		90	70 - 130
Dibromochloromethane	<0.000430		0.0200	0.01854		mg/L		93	70 - 130
1,2-Dibromo-3-Chloropropane	<0.000300		0.0200	0.01479		mg/L		74	70 - 130
1,2-Dichlorobenzene	<0.000170		0.0200	0.01902		mg/L		95	70 - 130
1,3-Dichlorobenzene	<0.000140		0.0200	0.01919		mg/L		96	70 - 130
1,4-Dichlorobenzene	<0.000180		0.0200	0.01927		mg/L		96	70 - 130
Dichlorodifluoromethane	<0.000340		0.0200	0.01934		mg/L		97	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-91116-2 MS
Matrix: Water
Analysis Batch: 281270

Client Sample ID: GW-27
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	<0.000390		0.0200	0.02008		mg/L		100	70 - 130
1,2-Dichloroethane	<0.000170		0.0200	0.01926		mg/L		96	70 - 130
1,1-Dichloroethene	<0.000320		0.0200	0.01866		mg/L		93	70 - 130
1,2-Dichloropropane	<0.000450		0.0200	0.01868		mg/L		93	70 - 130
1,3-Dichloropropane	<0.000430		0.0200	0.01842		mg/L		92	70 - 130
2,2-Dichloropropane	<0.000310		0.0200	0.01384	N	mg/L		69	70 - 130
1,1-Dichloropropene	<0.000190		0.0200	0.01868		mg/L		93	70 - 130
Ethylbenzene	<0.000120		0.0200	0.01941		mg/L		97	70 - 130
Ethylene Dibromide	<0.000200		0.0200	0.01829		mg/L		91	70 - 130
Freon 113	<0.000150		0.0160	0.01603		mg/L		100	70 - 130
Hexachlorobutadiene	<0.000260		0.0200	0.01776		mg/L		89	70 - 130
2-Hexanone	<0.00500		0.0400	0.03205		mg/L		80	70 - 130
Isopropylbenzene	<0.000150		0.0200	0.01991		mg/L		100	70 - 130
Methylene bromide	<0.000380		0.0200	0.01780		mg/L		89	70 - 130
Methylene Chloride	<0.000360		0.0200	0.01818		mg/L		91	70 - 130
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0400	0.03436		mg/L		86	70 - 130
Methyl tert-butyl ether	<0.000260		0.0160	0.01443		mg/L		90	70 - 130
m-Xylene & p-Xylene	<0.000420		0.0400	0.03838		mg/L		96	70 - 130
Naphthalene	<0.000430		0.0200	0.01138	N	mg/L		57	70 - 130
n-Butylbenzene	<0.000170		0.0200	0.01860		mg/L		93	70 - 130
N-Propylbenzene	<0.000170		0.0200	0.01965		mg/L		98	70 - 130
o-Xylene	<0.000270		0.0200	0.01958		mg/L		98	70 - 130
sec-Butylbenzene	<0.000140		0.0200	0.02009		mg/L		100	70 - 130
Styrene	<0.000280		0.0200	0.01992		mg/L		100	70 - 130
tert-Butylbenzene	<0.000140		0.0200	0.01994		mg/L		100	70 - 130
1,1,1,2-Tetrachloroethane	<0.000160		0.0200	0.01987		mg/L		99	70 - 130
1,1,2,2-Tetrachloroethane	<0.000180		0.0200	0.01860		mg/L		93	70 - 130
Tetrachloroethene	<0.000300		0.0200	0.01800		mg/L		90	70 - 130
Toluene	<0.000230		0.0200	0.01960		mg/L		98	70 - 130
trans-1,2-Dichloroethene	<0.000240		0.0200	0.01877		mg/L		94	70 - 130
trans-1,3-Dichloropropene	<0.000480		0.0200	0.01709		mg/L		85	70 - 130
1,2,4-Trichlorobenzene	<0.000180		0.0200	0.01465		mg/L		73	70 - 130
1,1,1-Trichloroethane	<0.000270		0.0200	0.01936		mg/L		97	70 - 130
1,1,2-Trichloroethane	<0.000220		0.0200	0.01875		mg/L		94	70 - 130
Trichloroethene	<0.000370		0.0200	0.01841		mg/L		92	70 - 130
Trichlorofluoromethane	<0.000230		0.0200	0.01903		mg/L		95	70 - 130
1,2,3-Trichloropropane	<0.000180		0.0200	0.01831		mg/L		92	70 - 130
1,2,4-Trimethylbenzene	<0.000170		0.0200	0.01972		mg/L		99	70 - 130
1,3,5-Trimethylbenzene	<0.000160		0.0200	0.02004		mg/L		100	70 - 130
Vinyl chloride	<0.000330		0.0200	0.01952		mg/L		98	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*70 - 130*
1,2-Dichlorobenzene-d4	*102*		*70 - 130*

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-91116-2 MSD
Matrix: Water
Analysis Batch: 281270

Client Sample ID: GW-27
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	<0.00500		0.0400	0.03301		mg/L		83	70 - 130	8	30
Benzene	<0.000180		0.0200	0.01968		mg/L		98	70 - 130	5	30
Bromobenzene	<0.000420		0.0200	0.02047		mg/L		102	70 - 130	6	30
Bromodichloromethane	<0.000100		0.0200	0.01975		mg/L		99	70 - 130	5	30
Bromoform	<0.000390		0.0200	0.01907		mg/L		95	70 - 130	8	30
Bromomethane	<0.000450		0.0200	0.02116		mg/L		106	70 - 130	6	30
2-Butanone (MEK)	<0.00500		0.0400	0.03462		mg/L		87	70 - 130	2	30
Carbon tetrachloride	<0.000220		0.0200	0.02143		mg/L		107	70 - 130	4	30
Chlorobenzene	<0.000270		0.0200	0.01985		mg/L		99	70 - 130	4	30
Chlorobromomethane	<0.000300		0.0200	0.02056		mg/L		103	70 - 130	5	30
Chloroethane	<0.000330		0.0200	0.02095		mg/L		105	70 - 130	5	30
Chloroform	<0.000290		0.0200	0.01959		mg/L		98	70 - 130	3	30
Chloromethane	<0.000320		0.0200	0.02013		mg/L		101	70 - 130	9	30
2-Chlorotoluene	<0.000170		0.0200	0.02051		mg/L		103	70 - 130	5	30
4-Chlorotoluene	<0.000160		0.0200	0.02030		mg/L		101	70 - 130	4	30
cis-1,2-Dichloroethene	<0.000370		0.0200	0.01942		mg/L		97	70 - 130	3	30
cis-1,3-Dichloropropene	<0.000320		0.0200	0.01835		mg/L		92	70 - 130	2	30
Dibromochloromethane	<0.000430		0.0200	0.01972		mg/L		99	70 - 130	6	30
1,2-Dibromo-3-Chloropropane	<0.000300		0.0200	0.01851		mg/L		93	70 - 130	22	30
1,2-Dichlorobenzene	<0.000170		0.0200	0.02037		mg/L		102	70 - 130	7	30
1,3-Dichlorobenzene	<0.000140		0.0200	0.02033		mg/L		102	70 - 130	6	30
1,4-Dichlorobenzene	<0.000180		0.0200	0.02013		mg/L		101	70 - 130	4	30
Dichlorodifluoromethane	<0.000340		0.0200	0.02090		mg/L		105	70 - 130	8	30
1,1-Dichloroethane	<0.000390		0.0200	0.02095		mg/L		105	70 - 130	4	30
1,2-Dichloroethane	<0.000170		0.0200	0.01941		mg/L		97	70 - 130	1	30
1,1-Dichloroethene	<0.000320		0.0200	0.01949		mg/L		97	70 - 130	4	30
1,2-Dichloropropane	<0.000450		0.0200	0.02021		mg/L		101	70 - 130	8	30
1,3-Dichloropropane	<0.000430		0.0200	0.01976		mg/L		99	70 - 130	7	30
2,2-Dichloropropane	<0.000310		0.0200	0.01367	N	mg/L		68	70 - 130	1	30
1,1-Dichloropropene	<0.000190		0.0200	0.02019		mg/L		101	70 - 130	8	30
Ethylbenzene	<0.000120		0.0200	0.02066		mg/L		103	70 - 130	6	30
Ethylene Dibromide	<0.000200		0.0200	0.01953		mg/L		98	70 - 130	7	30
Freon 113	<0.000150		0.0160	0.01623		mg/L		101	70 - 130	1	30
Hexachlorobutadiene	<0.000260		0.0200	0.01913		mg/L		96	70 - 130	7	30
2-Hexanone	<0.00500		0.0400	0.03347		mg/L		84	70 - 130	4	30
Isopropylbenzene	<0.000150		0.0200	0.02080		mg/L		104	70 - 130	4	30
Methylene bromide	<0.000380		0.0200	0.01902		mg/L		95	70 - 130	7	30
Methylene Chloride	<0.000360		0.0200	0.01914		mg/L		96	70 - 130	5	30
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0400	0.03635		mg/L		91	70 - 130	6	30
Methyl tert-butyl ether	<0.000260		0.0160	0.01482		mg/L		93	70 - 130	3	30
m-Xylene & p-Xylene	<0.000420		0.0400	0.04034		mg/L		101	70 - 130	5	30
Naphthalene	<0.000430		0.0200	0.01660	N	mg/L		83	70 - 130	37	30
n-Butylbenzene	<0.000170		0.0200	0.01940		mg/L		97	70 - 130	4	30
N-Propylbenzene	<0.000170		0.0200	0.02041		mg/L		102	70 - 130	4	30
o-Xylene	<0.000270		0.0200	0.02067		mg/L		103	70 - 130	5	30
sec-Butylbenzene	<0.000140		0.0200	0.02130		mg/L		106	70 - 130	6	30
Styrene	<0.000280		0.0200	0.02149		mg/L		107	70 - 130	8	30
tert-Butylbenzene	<0.000140		0.0200	0.02080		mg/L		104	70 - 130	4	30

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-91116-2 MSD
Matrix: Water
Analysis Batch: 281270

Client Sample ID: GW-27
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<0.000160		0.0200	0.02041		mg/L		102	70 - 130	3	30
1,1,2,2-Tetrachloroethane	<0.000180		0.0200	0.02030		mg/L		102	70 - 130	9	30
Tetrachloroethene	<0.000300		0.0200	0.01893		mg/L		95	70 - 130	5	30
Toluene	<0.000230		0.0200	0.02032		mg/L		102	70 - 130	4	30
trans-1,2-Dichloroethene	<0.000240		0.0200	0.01952		mg/L		98	70 - 130	4	30
trans-1,3-Dichloropropene	<0.000480		0.0200	0.01798		mg/L		90	70 - 130	5	30
1,2,4-Trichlorobenzene	<0.000180		0.0200	0.01768		mg/L		88	70 - 130	19	30
1,1,1-Trichloroethane	<0.000270		0.0200	0.02030		mg/L		101	70 - 130	5	30
1,1,2-Trichloroethane	<0.000220		0.0200	0.01942		mg/L		97	70 - 130	4	30
Trichloroethene	<0.000370		0.0200	0.01938		mg/L		97	70 - 130	5	30
Trichlorofluoromethane	<0.000230		0.0200	0.01999		mg/L		100	70 - 130	5	30
1,2,3-Trichloropropane	<0.000180		0.0200	0.01987		mg/L		99	70 - 130	8	30
1,2,4-Trimethylbenzene	<0.000170		0.0200	0.02076		mg/L		104	70 - 130	5	30
1,3,5-Trimethylbenzene	<0.000160		0.0200	0.02103		mg/L		105	70 - 130	5	30
Vinyl chloride	<0.000330		0.0200	0.02062		mg/L		103	70 - 130	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*70 - 130*
1,2-Dichlorobenzene-d4	*105*		*70 - 130*

QC Association Summary

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

GC/MS VOA

Analysis Batch: 281270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-91116-1	FB-3	Total/NA	Water	524.2	
680-91116-2	GW-27	Total/NA	Water	524.2	
680-91116-2 MS	GW-27	Total/NA	Water	524.2	
680-91116-2 MSD	GW-27	Total/NA	Water	524.2	
680-91116-3	GW-28	Total/NA	Water	524.2	
680-91116-4	GW-14	Total/NA	Water	524.2	
680-91116-5	GW-7	Total/NA	Water	524.2	
680-91116-6	Trip Blank	Total/NA	Water	524.2	
LCS 680-281270/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 680-281270/4	Lab Control Sample Dup	Total/NA	Water	524.2	
MB 680-281270/6	Method Blank	Total/NA	Water	524.2	

Lab Chronicle

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Client Sample ID: FB-3 — Lab Sample ID: 680-91116-1

Date Collected: 06/06/13 10:50 — **Matrix: Water**
Date Received: 06/07/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281270	06/20/13 01:01	WJC	TAL SAV

Client Sample ID: GW-27 — Lab Sample ID: 680-91116-2

Date Collected: 06/06/13 11:15 — **Matrix: Water**
Date Received: 06/07/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281270	06/20/13 01:24	WJC	TAL SAV

Client Sample ID: GW-28 — Lab Sample ID: 680-91116-3

Date Collected: 06/06/13 12:01 — **Matrix: Water**
Date Received: 06/07/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281270	06/20/13 01:46	WJC	TAL SAV

Client Sample ID: GW-14 — Lab Sample ID: 680-91116-4

Date Collected: 06/06/13 12:40 — **Matrix: Water**
Date Received: 06/07/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281270	06/20/13 02:08	WJC	TAL SAV

Client Sample ID: GW-7 — Lab Sample ID: 680-91116-5

Date Collected: 06/06/13 13:30 — **Matrix: Water**
Date Received: 06/07/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281270	06/20/13 02:31	WJC	TAL SAV

Client Sample ID: Trip Blank — Lab Sample ID: 680-91116-6

Date Collected: 06/06/13 00:00 — **Matrix: Water**
Date Received: 06/07/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	281270	06/20/13 02:53	WJC	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 68970

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: Kermit PWS	PROJECT NO.: 1486519	PROJECT LOCATION (STATE): TX	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER:	P.O. NUMBER:	CONTRACT NO.:	STANDARD REPORT DELIVERY ✓ DATE DUE
CLIENT (SITE) PM: Kim Wallace-Wymore	CLIENT PHONE: 972-315-3922	CLIENT FAX: 315-5181	EXPEDITED REPORT DELIVERY (SURCHARGE) DATE DUE
CLIENT NAME: EA Engineering	CLIENT E-MAIL:		
CLIENT ADDRESS: 405 Stillway 121 C-100 Lewisville, TX 75067			
COMPANY CONTRACTING THIS WORK (if applicable): TCEQ			NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: VOC 524.2; none

PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
6-6-13	1050	FB-3		✓				3	
	1115	GW-27		✓				9	MS/MSD
	1201	GW-28		✓				3	
	1240	GW-14		✓				3	
	1330	GW-7		✓				3	
—	—	Trip Blank		✓				2	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	6-6-13	1800						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
Fed Ex 8025 1811 4909								

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	06/07/13	0945	YES ○ NO ○		680 9116	1.2 °C

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: EA Engineering, Science, and Technology

Job Number: 680-91116-1
SDG Number: 68091116-1

Login Number: 91116
List Number: 1
Creator: Barnett, Eddie T

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: EA Engineering, Science, and Technology
Project/Site: TCEQ AIRS - Kermit, TX

TestAmerica Job ID: 680-91116-1
SDG: 68091116-1

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		399.01	07-31-13
Alabama	State Program	4	41450	06-30-13
Arkansas DEQ	State Program	6	88-0692	02-01-14 *
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-13
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13 *
Kentucky	State Program	4	90084	12-31-12 *
Kentucky (UST)	State Program	4	18	03-31-13 *
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13 *
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-13 *
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	09-30-13
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

* Expired certification is currently pending renewal and is considered valid.

Appendix C

Data Review Summary

Data Review Summary

City of Kermit PWS Site
Kermit, Winkler County, Texas
Work Order: 256-0019

EA Engineering collected a total of 26 groundwater samples (including QC samples) during 4-6 June 2013. The samples were analyzed for volatile organic compounds by EPA drinking water method 524.2. A summary of the data review and qualifiers applied to the data are provided in this report.

1.0 Review of the Laboratory Review Checklist

Exceptions were identified in the Laboratory Review Checklist (LRC). QC results identified by the laboratory as being outside the acceptance criteria were checked against the LRC to evaluate whether problems were identified and reported per Element D.2.1.3 of the QAPP.

A copy of the original chain-of-custody (C-O-C) document was present in the data packages. The data packages included results for the analyses requested on the C-O-C. The sample identifications were in agreement with the C-O-C.

The samples were received at the laboratory in good condition and within the acceptable temperature range of 2-6 degrees C, unless otherwise noted.

Samples in sample delivery group (SDG) J91116 were received at 1.2 degrees C. The samples were viable and were not received frozen. No data qualification is required.

2.0 Holding Times

The samples were analyzed within the method-specified holding time.

3.0 Initial and/or Continuing Calibration Verification

The initial and continuing calibration verifications associated with the project samples were within acceptable limits.

No calibration issues were noted by the laboratory in the LRC.

4.0 Internal Standard Data

The internal standard area counts and retention times were within the acceptable limits for the selected samples.

No issues were noted by the laboratory in the LRC.

5.0 Blanks

Target compounds were not detected in the field blanks or trip blanks associated with the project samples.

Target compounds were not detected in the laboratory method blank, unless otherwise noted.

SDG 91077 — The method blank for batch 281025 contained n-butylbenzene at a concentration of 0.0001720 mg/L and 1,2,4-trichlorobenzene at 0.0002009 mg/L. The method blank for batch 281165 also contained 1,2,4-trichlorobenzene at 0.0002089 mg/L. These analytes were not detected in the project samples. Therefore, no data were qualified.

6.0 Laboratory Control Sample

The laboratory control sample (LCS) recoveries and calculated RPDs were within acceptable limits, unless otherwise noted.

SDG 91015 and SDG 91077 — Chloroethane was recovered high in the LCS for batch 281026. Chloroethane was not detected in the project samples. Therefore, no data were qualified.

LCS recovery issues were noted by the laboratory in the LRC.

7.0 Matrix Spike and Matrix Spike Duplicate

The MS/MSD recoveries and RPDs were within acceptable limits, unless otherwise noted.

SDG 91116 — Naphthalene and 2,2-dichloropropane were recovered below acceptable limits in the MS/MSD. Naphthalene and 2,2-dichloropropane were qualified UJL-MS/SD in samples GW-27, GW-28, GW-14, and GW-7. The RPD for naphthalene was also outside acceptable limits; however, naphthalene was not detected in the project samples. No data were qualified due to the MS/MSD RPD.

Issues concerning MS/MSD recoveries were noted on the LRC.

8.0 Surrogate Recoveries

The surrogate recoveries were within acceptable limits, unless otherwise noted.

SDG 91015 — One of the surrogates was recovered below acceptable limits in sample GW-18, indicating a potential for low bias in the results. Detected results in sample GW-18 were qualified JL-SUR. Non-detected results in sample GW-18 were qualified UJL-SUR.

Issues concerning surrogate recovery were documented in the LRC.

9.0 Field Duplicate Result Agreement

The field duplicate samples collected met the precision criteria. No qualification is required.

10.0 Overall Assessment of Data

Results were qualified due to low MS/MSD recoveries and low surrogate recoveries as described in Sections 7.0 and 8.0 of this report. The data are acceptable with the qualifications noted and appended to the data by the reviewer and/or the laboratory. These qualifiers modify the usefulness of the individual values to which they are assigned.

Attachment 1

Data Tables with qualifiers

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-19	6/4/2013	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Chloroform	67-66-3	0.000648			mg/L	0.00029	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-1

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-19	6/4/2013	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Trichloroethene	79-01-6	0.00074			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-1
GW-19	6/4/2013	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/15/2013	680-91015-1
GW-18	6/4/2013	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160		UJL - SUR	mg/L	0.00016	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270		UJL - SUR	mg/L	0.00027	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180		UJL - SUR	mg/L	0.00018	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220		UJL - SUR	mg/L	0.00022	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390		UJL - SUR	mg/L	0.00039	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320		UJL - SUR	mg/L	0.00032	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190		UJL - SUR	mg/L	0.00019	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180		UJL - SUR	mg/L	0.00018	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180		UJL - SUR	mg/L	0.00018	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170		UJL - SUR	mg/L	0.00017	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300		UJL - SUR	mg/L	0.0003	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170		UJL - SUR	mg/L	0.00017	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170		UJL - SUR	mg/L	0.00017	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450		UJL - SUR	mg/L	0.00045	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160		UJL - SUR	mg/L	0.00016	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140		UJL - SUR	mg/L	0.00014	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430		UJL - SUR	mg/L	0.00043	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180		UJL - SUR	mg/L	0.00018	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310		UJL - SUR	mg/L	0.00031	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500		UJL - SUR	mg/L	0.005	1	0.01	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170		UJL - SUR	mg/L	0.00017	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	2-Hexanone	591-78-6	<0.00500		UJL - SUR	mg/L	0.005	1	0.01	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160		UJL - SUR	mg/L	0.00016	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500		UJL - SUR	mg/L	0.005	1	0.01	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Acetone	67-64-1	<0.00500		UJL - SUR	mg/L	0.005	1	0.01	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Benzene	71-43-2	<0.000180		UJL - SUR	mg/L	0.00018	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Bromobenzene	108-86-1	<0.000420		UJL - SUR	mg/L	0.00042	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Bromodichloromethane	75-27-4	<0.000100		UJL - SUR	mg/L	0.0001	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Bromoform	75-25-2	<0.000390		UJL - SUR	mg/L	0.00039	1	0.0005	6/15/2013	680-91015-2

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-18	6/4/2013	524.2	Water	Bromomethane	74-83-9	<0.000450		UJL - SUR	mg/L	0.00045	1	0.001	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220		UJL - SUR	mg/L	0.00022	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Chlorobenzene	108-90-7	<0.000270		UJL - SUR	mg/L	0.00027	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Chlorobromomethane	74-97-5	<0.000300		UJL - SUR	mg/L	0.0003	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Chloroethane	75-00-3	<0.000330		UJL - SUR	mg/L	0.00033	1	0.001	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Chloroform	67-66-3	0.00128		JL - SUR	mg/L	0.00029	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Chloromethane	74-87-3	<0.000320		UJL - SUR	mg/L	0.00032	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370		UJL - SUR	mg/L	0.00037	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320		UJL - SUR	mg/L	0.00032	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Dibromochloromethane	124-48-1	<0.000430		UJL - SUR	mg/L	0.00043	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340		UJL - SUR	mg/L	0.00034	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Ethylbenzene	100-41-4	<0.000120		UJL - SUR	mg/L	0.00012	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200		UJL - SUR	mg/L	0.0002	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Freon 113	76-13-1	<0.000150		UJL - SUR	mg/L	0.00015	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260		UJL - SUR	mg/L	0.00026	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Isopropylbenzene	98-82-8	<0.000150		UJL - SUR	mg/L	0.00015	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260		UJL - SUR	mg/L	0.00026	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Methylene bromide	74-95-3	<0.000380		UJL - SUR	mg/L	0.00038	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Methylene Chloride	75-09-2	<0.000360		UJL - SUR	mg/L	0.00036	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420		UJL - SUR	mg/L	0.00042	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Naphthalene	91-20-3	<0.000430		UJL - SUR	mg/L	0.00043	1	0.001	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	n-Butylbenzene	104-51-8	<0.000170		UJL - SUR	mg/L	0.00017	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	N-Propylbenzene	103-65-1	<0.000170		UJL - SUR	mg/L	0.00017	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	o-Xylene	95-47-6	<0.000270		UJL - SUR	mg/L	0.00027	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140		UJL - SUR	mg/L	0.00014	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Styrene	100-42-5	<0.000280		UJL - SUR	mg/L	0.00028	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140		UJL - SUR	mg/L	0.00014	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Tetrachloroethene	127-18-4	<0.000300		UJL - SUR	mg/L	0.0003	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Toluene	108-88-3	<0.000230		UJL - SUR	mg/L	0.00023	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240		UJL - SUR	mg/L	0.00024	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480		UJL - SUR	mg/L	0.00048	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Trichloroethene	79-01-6	0.00146		JL-SUR	mg/L	0.00037	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230		UJL - SUR	mg/L	0.00023	1	0.0005	6/15/2013	680-91015-2
GW-18	6/4/2013	524.2	Water	Vinyl chloride	75-01-4	<0.000330		UJL - SUR	mg/L	0.00033	1	0.0005	6/15/2013	680-91015-2
GW-17	6/4/2013	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-3

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-17	6/4/2013	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Chloroform	67-66-3	0.00119			mg/L	0.00029	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-3

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-17	6/4/2013	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Trichloroethene	79-01-6	0.00139			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-3
GW-17	6/4/2013	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/15/2013	680-91015-3
GW-20	6/4/2013	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/15/2013	680-91015-4

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-20	6/4/2013	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-4
GW-20	6/4/2013	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/15/2013	680-91015-4
GW-22	6/4/2013	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91015-5

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-22	6/4/2013	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Chloroethane	75-00-3	<0.000330	*		mg/L	0.00033	1	0.001	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Tetrachloroethene	127-18-4	0.00039	J		mg/L	0.0003	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91015-5
GW-22	6/4/2013	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/18/2013	680-91015-5
GW-10	6/4/2013	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/15/2013	680-91015-6

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-10	6/4/2013	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-6

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-10	6/4/2013	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Tetrachloroethene	127-18-4	0.00577			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-6
GW-10	6/4/2013	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/15/2013	680-91015-6
GW-98	6/4/2013	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-7

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-98	6/4/2013	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Tetrachloroethene	127-18-4	0.00568			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-7
GW-98	6/4/2013	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/15/2013	680-91015-7
FB-1	6/4/2013	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/15/2013	680-91015-8

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
FB-1	6/4/2013	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-8
FB-1	6/4/2013	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/15/2013	680-91015-8
Trip Blank	6/4/2013	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-9

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
Trip Blank	6/4/2013	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/15/2013	680-91015-9

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
Trip Blank	6/4/2013	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/15/2013	680-91015-9
Trip Blank	6/4/2013	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/15/2013	680-91015-9

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-16	6/5/2013 9:22	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-1

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-16	6/5/2013 9:22	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-1
GW-16	6/5/2013 9:22	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/18/2013	680-91077-1
GW-26	6/5/2013 14:55	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-10

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-26	6/5/2013 14:55	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Tetrachloroethene	127-18-4	0.000797			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-10
GW-26	6/5/2013 14:55	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/19/2013	680-91077-10
Trip Blank	6/5/2013 0:00	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-11

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
Trip Blank	6/5/2013 0:00	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-11

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
Trip Blank	6/5/2013 0:00	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-11
Trip Blank	6/5/2013 0:00	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/19/2013	680-91077-11
GW-25	6/5/2013 10:30	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/18/2013	680-91077-2

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-25	6/5/2013 10:30	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-2
GW-25	6/5/2013 10:30	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/18/2013	680-91077-2
GW-9	6/5/2013 11:23	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-3

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-9	6/5/2013 11:23	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Tetrachloroethene	127-18-4	0.0233			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-3
GW-9	6/5/2013 11:23	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/18/2013	680-91077-3
GW-1	6/5/2013 12:02	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/18/2013	680-91077-4

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-1	6/5/2013 12:02	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Chloroethane	75-00-3	<0.000330	*		mg/L	0.00033	1	0.001	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-4

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-1	6/5/2013 12:02	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Tetrachloroethene	127-18-4	0.00254			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-4
GW-1	6/5/2013 12:02	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/18/2013	680-91077-4
GW-12	6/5/2013 12:40	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-5

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-12	6/5/2013 12:40	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Tetrachloroethene	127-18-4	0.00152			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-5
GW-12	6/5/2013 12:40	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/19/2013	680-91077-5
GW-99	6/5/2013 13:00	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/18/2013	680-91077-6

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-99	6/5/2013 13:00	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Chloroethane	75-00-3	<0.000330	*		mg/L	0.00033	1	0.001	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Tetrachloroethene	127-18-4	0.00144			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-6
GW-99	6/5/2013 13:00	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/18/2013	680-91077-6
GW-13	6/5/2013 13:30	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-7

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-13	6/5/2013 13:30	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/19/2013	680-91077-7

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-13	6/5/2013 13:30	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-7
GW-13	6/5/2013 13:30	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/19/2013	680-91077-7
GW-11	6/5/2013 13:53	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/19/2013	680-91077-8

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-11	6/5/2013 13:53	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Tetrachloroethene	127-18-4	0.00324			mg/L	0.0003	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/19/2013	680-91077-8
GW-11	6/5/2013 13:53	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/19/2013	680-91077-8
FB-2	6/5/2013 14:40	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/18/2013	680-91077-9

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
FB-2	6/5/2013 14:40	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Chloroethane	75-00-3	<0.000330	*		mg/L	0.00033	1	0.001	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/18/2013	680-91077-9

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
FB-2	6/5/2013 14:40	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/18/2013	680-91077-9
FB-2	6/5/2013 14:40	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/18/2013	680-91077-9

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
FB-3	6/6/2013 10:50	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-1

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
FB-3	6/6/2013 10:50	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-1
FB-3	6/6/2013 10:50	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/20/2013	680-91116-1
GW-27	6/6/2013 11:15	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310		UJL - MS/SD	mg/L	0.00031	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-2

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-27	6/6/2013 11:15	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Naphthalene	91-20-3	<0.000430		UJL - MS/SD	mg/L	0.00043	1	0.001	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-2
GW-27	6/6/2013 11:15	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/20/2013	680-91116-2
GW-28	6/6/2013 12:01	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-3

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-28	6/6/2013 12:01	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310		UJL - MS/SD	mg/L	0.00031	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Naphthalene	91-20-3	<0.000430		UJL - MS/SD	mg/L	0.00043	1	0.001	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-3

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-28	6/6/2013 12:01	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-3
GW-28	6/6/2013 12:01	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/20/2013	680-91116-3
GW-14	6/6/2013 12:40	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310		UJL - MS/SD	mg/L	0.00031	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Chloroform	67-66-3	0.000653			mg/L	0.00029	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/20/2013	680-91116-4

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-14	6/6/2013 12:40	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Naphthalene	91-20-3	<0.000430		UJL - MS/SD	mg/L	0.00043	1	0.001	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Tetrachloroethene	127-18-4	0.000429	J		mg/L	0.0003	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-4
GW-14	6/6/2013 12:40	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/20/2013	680-91116-4
GW-7	6/6/2013 13:30	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310		UJL - MS/SD	mg/L	0.00031	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-5

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
GW-7	6/6/2013 13:30	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Naphthalene	91-20-3	<0.000430		UJL - MS/SD	mg/L	0.00043	1	0.001	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-5
GW-7	6/6/2013 13:30	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/20/2013	680-91116-5
Trip Blank	6/6/2013 0:00	524.2	Water	1,1,1,2-Tetrachloroethane	630-20-6	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,1,1-Trichloroethane	71-55-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,1,2,2-Tetrachloroethane	79-34-5	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,1,2-Trichloroethane	79-00-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,1-Dichloroethane	75-34-3	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,1-Dichloroethene	75-35-4	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,1-Dichloropropene	563-58-6	<0.000190			mg/L	0.00019	1	0.0005	6/20/2013	680-91116-6

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
Trip Blank	6/6/2013 0:00	524.2	Water	1,2,3-Trichloropropane	96-18-4	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,2,4-Trichlorobenzene	120-82-1	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,2,4-Trimethylbenzene	95-63-6	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,2-Dibromo-3-Chloropropane	96-12-8	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,2-Dichlorobenzene	95-50-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,2-Dichloroethane	107-06-2	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,2-Dichloropropane	78-87-5	<0.000450			mg/L	0.00045	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,3,5-Trimethylbenzene	108-67-8	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,3-Dichlorobenzene	541-73-1	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,3-Dichloropropane	142-28-9	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	1,4-Dichlorobenzene	106-46-7	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	2,2-Dichloropropane	594-20-7	<0.000310			mg/L	0.00031	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	2-Butanone (MEK)	78-93-3	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	2-Chlorotoluene	95-49-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	2-Hexanone	591-78-6	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	4-Chlorotoluene	106-43-4	<0.000160			mg/L	0.00016	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	4-Methyl-2-pentanone (MIBK)	108-10-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Acetone	67-64-1	<0.00500			mg/L	0.005	1	0.01	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Benzene	71-43-2	<0.000180			mg/L	0.00018	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Bromobenzene	108-86-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Bromodichloromethane	75-27-4	<0.000100			mg/L	0.0001	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Bromoform	75-25-2	<0.000390			mg/L	0.00039	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Bromomethane	74-83-9	<0.000450			mg/L	0.00045	1	0.001	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Carbon tetrachloride	56-23-5	<0.000220			mg/L	0.00022	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Chlorobenzene	108-90-7	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Chlorobromomethane	74-97-5	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Chloroethane	75-00-3	<0.000330			mg/L	0.00033	1	0.001	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Chloroform	67-66-3	<0.000290			mg/L	0.00029	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Chloromethane	74-87-3	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	cis-1,2-Dichloroethene	156-59-2	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	cis-1,3-Dichloropropene	10061-01-5	<0.000320			mg/L	0.00032	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Dibromochloromethane	124-48-1	<0.000430			mg/L	0.00043	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Dichlorodifluoromethane	75-71-8	<0.000340			mg/L	0.00034	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Ethylbenzene	100-41-4	<0.000120			mg/L	0.00012	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Ethylene Dibromide	106-93-4	<0.000200			mg/L	0.0002	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Freon 113	76-13-1	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Hexachlorobutadiene	87-68-3	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Isopropylbenzene	98-82-8	<0.000150			mg/L	0.00015	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Methyl tert-butyl ether	1634-04-4	<0.000260			mg/L	0.00026	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Methylene bromide	74-95-3	<0.000380			mg/L	0.00038	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Methylene Chloride	75-09-2	<0.000360			mg/L	0.00036	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	m-Xylene & p-Xylene	179601-23-1	<0.000420			mg/L	0.00042	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Naphthalene	91-20-3	<0.000430			mg/L	0.00043	1	0.001	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	n-Butylbenzene	104-51-8	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	N-Propylbenzene	103-65-1	<0.000170			mg/L	0.00017	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	o-Xylene	95-47-6	<0.000270			mg/L	0.00027	1	0.0005	6/20/2013	680-91116-6

Sample ID	Sample Date	Method	Matrix	Analyte	CAS	Result	Lab Qualifier	EA Qualifier	Units	MDL	DF	RL	Analysis Date	Lab ID
Trip Blank	6/6/2013 0:00	524.2	Water	sec-Butylbenzene	135-98-8	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Styrene	100-42-5	<0.000280			mg/L	0.00028	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	tert-Butylbenzene	98-06-6	<0.000140			mg/L	0.00014	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Tetrachloroethene	127-18-4	<0.000300			mg/L	0.0003	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Toluene	108-88-3	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	trans-1,2-Dichloroethene	156-60-5	<0.000240			mg/L	0.00024	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	trans-1,3-Dichloropropene	10061-02-6	<0.000480			mg/L	0.00048	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Trichloroethene	79-01-6	<0.000370			mg/L	0.00037	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Trichlorofluoromethane	75-69-4	<0.000230			mg/L	0.00023	1	0.0005	6/20/2013	680-91116-6
Trip Blank	6/6/2013 0:00	524.2	Water	Vinyl chloride	75-01-4	<0.000330			mg/L	0.00033	1	0.0005	6/20/2013	680-91116-6

Attachment 2

Annotated Analytical Data Sheets

Client Sample ID: GW-19

Lab Sample ID: 680-91015-1

Date Collected: 06/04/13 11:50

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:12	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/15/13 17:12	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/15/13 17:12	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/15/13 17:12	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/15/13 17:12	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:12	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/15/13 17:12	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/15/13 17:12	1
Trichloroethene	**0.000740**		0.000500	0.000370	mg/L			06/15/13 17:12	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/15/13 17:12	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/15/13 17:12	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/15/13 17:12	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/15/13 17:12	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/15/13 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*70 - 130*		*06/15/13 17:12*	*1*
1,2-Dichlorobenzene-d4	*75*		*70 - 130*		*06/15/13 17:12*	*1*

Client Sample ID: GW-18

Lab Sample ID: 680-91015-2

Date Collected: 06/04/13 12:40

Matrix: Water

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500	UJL-SUR	0.0100	0.00500	mg/L			06/15/13 17:39	1
Benzene	<0.000180	UJL-SUR	0.000500	0.000180	mg/L			06/15/13 17:39	1
Bromobenzene	<0.000420	UJL-SUR	0.000500	0.000420	mg/L			06/15/13 17:39	1
Bromodichloromethane	<0.000100	UJL-SUR	0.000500	0.000100	mg/L			06/15/13 17:39	1
Bromoform	<0.000390	UJL-SUR	0.000500	0.000390	mg/L			06/15/13 17:39	1
Bromomethane	<0.000450	UJL-SUR	0.00100	0.000450	mg/L			06/15/13 17:39	1
2-Butanone (MEK)	<0.00500	UJL-SUR	0.0100	0.00500	mg/L			06/15/13 17:39	1
Carbon tetrachloride	<0.000220	UJL-SUR	0.000500	0.000220	mg/L			06/15/13 17:39	1
Chlorobenzene	<0.000270	UJL-SUR	0.000500	0.000270	mg/L			06/15/13 17:39	1
Chlorobromomethane	<0.000300	UJL-SUR	0.000500	0.000300	mg/L			06/15/13 17:39	1
Chloroethane	<0.000330	UJL-SUR	0.00100	0.000330	mg/L			06/15/13 17:39	1
Chloroform	**0.00128**	JL-SUR	0.000500	0.000290	mg/L			06/15/13 17:39	1
Chloromethane	<0.000320	UJL-SUR	0.000500	0.000320	mg/L			06/15/13 17:39	1
2-Chlorotoluene	<0.000170	UJL-SUR	0.000500	0.000170	mg/L			06/15/13 17:39	1
4-Chlorotoluene	<0.000160	UJL-SUR	0.000500	0.000160	mg/L			06/15/13 17:39	1
cis-1,2-Dichloroethene	<0.000370	UJL-SUR	0.000500	0.000370	mg/L			06/15/13 17:39	1
cis-1,3-Dichloropropene	<0.000320	UJL-SUR	0.000500	0.000320	mg/L			06/15/13 17:39	1
Dibromochloromethane	<0.000430	UJL-SUR	0.000500	0.000430	mg/L			06/15/13 17:39	1
1,2-Dibromo-3-Chloropropane	<0.000300	UJL-SUR	0.000500	0.000300	mg/L			06/15/13 17:39	1
1,2-Dichlorobenzene	<0.000170	UJL-SUR	0.000500	0.000170	mg/L			06/15/13 17:39	1
1,3-Dichlorobenzene	<0.000140	UJL-SUR	0.000500	0.000140	mg/L			06/15/13 17:39	1
1,4-Dichlorobenzene	<0.000180	UJL-SUR	0.000500	0.000180	mg/L			06/15/13 17:39	1
Dichlorodifluoromethane	<0.000340	UJL-SUR	0.000500	0.000340	mg/L			06/15/13 17:39	1
1,1-Dichloroethane	<0.000390	UJL-SUR	0.000500	0.000390	mg/L			06/15/13 17:39	1
1,2-Dichloroethane	<0.000170	UJL-SUR	0.000500	0.000170	mg/L			06/15/13 17:39	1

Client Sample ID: GW-18 | **Lab Sample ID: 680-91015-2**

Date Collected: 06/04/13 12:40 | **Matrix: Water**

Date Received: 06/05/13 10:01

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.000320	UJL-SUR	0.000500	0.000320	mg/L			06/15/13 17:39	1
1,2-Dichloropropane	<0.000450	UJL-SUR	0.000500	0.000450	mg/L			06/15/13 17:39	1
1,3-Dichloropropane	<0.000430	UJL-SUR	0.000500	0.000430	mg/L			06/15/13 17:39	1
2,2-Dichloropropane	<0.000310	UJL-SUR	0.000500	0.000310	mg/L			06/15/13 17:39	1
1,1-Dichloropropene	<0.000190	UJL-SUR	0.000500	0.000190	mg/L			06/15/13 17:39	1
Ethylbenzene	<0.000120	UJL-SUR	0.000500	0.000120	mg/L			06/15/13 17:39	1
Ethylene Dibromide	<0.000200	UJL-SUR	0.000500	0.000200	mg/L			06/15/13 17:39	1
Freon 113	<0.000150	UJL-SUR	0.000500	0.000150	mg/L			06/15/13 17:39	1
Hexachlorobutadiene	<0.000260	UJL-SUR	0.000500	0.000260	mg/L			06/15/13 17:39	1
2-Hexanone	<0.00500	UJL-SUR	0.0100	0.00500	mg/L			06/15/13 17:39	1
Isopropylbenzene	<0.000150	UJL-SUR	0.000500	0.000150	mg/L			06/15/13 17:39	1
Methylene bromide	<0.000380	UJL-SUR	0.000500	0.000380	mg/L			06/15/13 17:39	1
Methylene Chloride	<0.000360	UJL-SUR	0.000500	0.000360	mg/L			06/15/13 17:39	1
4-Methyl-2-pentanone (MIBK)	<0.00500	UJL-SUR	0.0100	0.00500	mg/L			06/15/13 17:39	1
Methyl tert-butyl ether	<0.000260	UJL-SUR	0.000500	0.000260	mg/L			06/15/13 17:39	1
m-Xylene & p-Xylene	<0.000420	UJL-SUR	0.000500	0.000420	mg/L			06/15/13 17:39	1
Naphthalene	<0.000430	UJL-SUR	0.00100	0.000430	mg/L			06/15/13 17:39	1
n-Butylbenzene	<0.000170	UJL-SUR	0.000500	0.000170	mg/L			06/15/13 17:39	1
N-Propylbenzene	<0.000170	UJL-SUR	0.000500	0.000170	mg/L			06/15/13 17:39	1
o-Xylene	<0.000270	UJL-SUR	0.000500	0.000270	mg/L			06/15/13 17:39	1
sec-Butylbenzene	<0.000140	UJL-SUR	0.000500	0.000140	mg/L			06/15/13 17:39	1
Styrene	<0.000280	UJL-SUR	0.000500	0.000140	mg/L			06/15/13 17:39	1
tert-Butylbenzene	<0.000140	UJL-SUR	0.000500	0.000140	mg/L			06/15/13 17:39	1
1,1,1,2-Tetrachloroethane	<0.000160	UJL-SUR	0.000500	0.000160	mg/L			06/15/13 17:39	1
1,1,2,2-Tetrachloroethane	<0.000180	UJL-SUR	0.000500	0.000180	mg/L			06/15/13 17:39	1
Tetrachloroethene	<0.000300	UJL-SUR	0.000500	0.000300	mg/L			06/15/13 17:39	1
Toluene	<0.000230	UJL-SUR	0.000500	0.000230	mg/L			06/15/13 17:39	1
trans-1,2-Dichloroethene	<0.000240	UJL-SUR	0.000500	0.000240	mg/L			06/15/13 17:39	1
trans-1,3-Dichloropropene	<0.000480	UJL-SUR	0.000500	0.000480	mg/L			06/15/13 17:39	1
1,2,4-Trichlorobenzene	<0.000180	UJL-SUR	0.000500	0.000180	mg/L			06/15/13 17:39	1
1,1,1-Trichloroethane	<0.000270	UJL-SUR	0.000500	0.000270	mg/L			06/15/13 17:39	1
1,1,2-Trichloroethane	<0.000220	UJL-SUR	0.000500	0.000220	mg/L			06/15/13 17:39	1
Trichloroethene	**0.00146**	JL-SUR	0.000500	0.000370	mg/L			06/15/13 17:39	1
Trichlorofluoromethane	<0.000230	UJL-SUR	0.000500	0.000230	mg/L			06/15/13 17:39	1
1,2,3-Trichloropropane	<0.000180	UJL-SUR	0.000500	0.000180	mg/L			06/15/13 17:39	1
1,2,4-Trimethylbenzene	<0.000170	UJL-SUR	0.000500	0.000170	mg/L			06/15/13 17:39	1
1,3,5-Trimethylbenzene	<0.000160	UJL-SUR	0.000500	0.000160	mg/L			06/15/13 17:39	1
Vinyl chloride	<0.000330	UJL-SUR	0.000500	0.000330	mg/L			06/15/13 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*70 - 130*		*06/15/13 17:39*	*1*
1,2-Dichlorobenzene-d4	*69*	*X*	*70 - 130*		*06/15/13 17:39*	*1*

Client Sample ID: FB-3

Lab Sample ID: 680-91116-1

Date Collected: 06/06/13 10:50

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:01	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:01	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:01	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 01:01	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 01:01	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:01	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:01	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:01	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:01	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:01	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:01	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:01	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:01	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*70 - 130*		*06/20/13 01:01*	*1*
1,2-Dichlorobenzene-d4	*84*		*70 - 130*		*06/20/13 01:01*	*1*

Client Sample ID: GW-27

Lab Sample ID: 680-91116-2

Date Collected: 06/06/13 11:15

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:24	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:24	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 01:24	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:24	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 01:24	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:24	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:24	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:24	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:24	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 01:24	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/20/13 01:24	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:24	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:24	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:24	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:24	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:24	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:24	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:24	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 01:24	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:24	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1

Client Sample ID: GW-27

Lab Sample ID: 680-91116-2

Date Collected: 06/06/13 11:15

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:24	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 01:24	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:24	1
2,2-Dichloropropane	<0.000310	UJL-MS/SD	0.000500	0.000310	mg/L			06/20/13 01:24	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 01:24	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 01:24	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 01:24	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:24	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:24	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:24	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:24	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 01:24	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 01:24	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:24	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:24	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:24	1
Naphthalene	<0.000430	UJL-MS/SD	0.00100	0.000430	mg/L			06/20/13 01:24	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:24	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:24	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 01:24	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:24	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:24	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:24	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:24	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 01:24	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 01:24	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:24	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:24	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:24	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:24	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:24	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:24	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:24	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*70 - 130*		*06/20/13 01:24*	*1*
1,2-Dichlorobenzene-d4	*88*		*70 - 130*		*06/20/13 01:24*	*1*

Client Sample ID: GW-28

Lab Sample ID: 680-91116-3

Date Collected: 06/06/13 12:01

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:46	1

Client Sample ID: GW-28 | **Lab Sample ID: 680-91116-3**

Date Collected: 06/06/13 12:01 | **Matrix: Water**

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:46	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 01:46	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:46	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 01:46	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:46	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:46	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:46	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:46	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 01:46	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/20/13 01:46	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:46	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:46	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:46	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:46	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:46	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:46	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:46	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 01:46	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 01:46	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 01:46	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 01:46	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 01:46	1
2,2-Dichloropropane	<0.000310	UJL-MS/SD	0.000500	0.000310	mg/L			06/20/13 01:46	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 01:46	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 01:46	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 01:46	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:46	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:46	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:46	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 01:46	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 01:46	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 01:46	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 01:46	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 01:46	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 01:46	1
Naphthalene	<0.000430	UJL-MS/SD	0.00100	0.000430	mg/L			06/20/13 01:46	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:46	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:46	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 01:46	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 01:46	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:46	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1

Client Sample ID: GW-28

Lab Sample ID: 680-91116-3

Date Collected: 06/06/13 12:01

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/20/13 01:46	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:46	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 01:46	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 01:46	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 01:46	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 01:46	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 01:46	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 01:46	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 01:46	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 01:46	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 01:46	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*70 - 130*		*06/20/13 01:46*	*1*
1,2-Dichlorobenzene-d4	*85*		*70 - 130*		*06/20/13 01:46*	*1*

Client Sample ID: GW-14

Lab Sample ID: 680-91116-4

Date Collected: 06/06/13 12:40

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:08	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:08	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 02:08	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:08	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 02:08	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:08	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:08	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:08	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:08	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 02:08	1
Chloroform	**0.000653**		0.000500	0.000290	mg/L			06/20/13 02:08	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:08	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:08	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:08	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:08	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:08	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:08	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:08	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 02:08	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:08	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:08	1

Client Sample ID: GW-14
Date Collected: 06/06/13 12:40
Date Received: 06/07/13 09:45

Lab Sample ID: 680-91116-4
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 02:08	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:08	1
2,2-Dichloropropane	<0.000310	UJL-MS/SD	0.000500	0.000310	mg/L			06/20/13 02:08	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 02:08	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 02:08	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 02:08	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:08	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:08	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:08	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:08	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 02:08	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 02:08	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:08	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:08	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:08	1
Naphthalene	<0.000430	UJL-MS/SD	0.00100	0.000430	mg/L			06/20/13 02:08	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:08	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:08	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 02:08	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:08	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:08	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
Tetrachloroethene	**0.000429**	**J**	0.000500	0.000300	mg/L			06/20/13 02:08	1
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:08	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 02:08	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 02:08	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:08	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:08	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:08	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:08	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:08	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:08	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:08	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 02:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*70 - 130*		*06/20/13 02:08*	*1*
1,2-Dichlorobenzene-d4	*85*		*70 - 130*		*06/20/13 02:08*	*1*

Client Sample ID: GW-7
Date Collected: 06/06/13 13:30
Date Received: 06/07/13 09:45

Lab Sample ID: 680-91116-5
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:31	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1

Client Sample ID: GW-7 | **Lab Sample ID: 680-91116-5**

Date Collected: 06/06/13 13:30 | **Matrix: Water**

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:31	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 02:31	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:31	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 02:31	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:31	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:31	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:31	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:31	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 02:31	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/20/13 02:31	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:31	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:31	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:31	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:31	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:31	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:31	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:31	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 02:31	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:31	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:31	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 02:31	1
1,3-Dichloropropane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:31	1
2,2-Dichloropropane	<0.000310	UJL-MS/SD	0.000500	0.000310	mg/L			06/20/13 02:31	1
1,1-Dichloropropene	<0.000190		0.000500	0.000190	mg/L			06/20/13 02:31	1
Ethylbenzene	<0.000120		0.000500	0.000120	mg/L			06/20/13 02:31	1
Ethylene Dibromide	<0.000200		0.000500	0.000200	mg/L			06/20/13 02:31	1
Freon 113	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:31	1
Hexachlorobutadiene	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:31	1
2-Hexanone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:31	1
Isopropylbenzene	<0.000150		0.000500	0.000150	mg/L			06/20/13 02:31	1
Methylene bromide	<0.000380		0.000500	0.000380	mg/L			06/20/13 02:31	1
Methylene Chloride	<0.000360		0.000500	0.000360	mg/L			06/20/13 02:31	1
4-Methyl-2-pentanone (MIBK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:31	1
Methyl tert-butyl ether	<0.000260		0.000500	0.000260	mg/L			06/20/13 02:31	1
m-Xylene & p-Xylene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:31	1
Naphthalene	<0.000430	UJL-MS/SD	0.00100	0.000430	mg/L			06/20/13 02:31	1
n-Butylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
N-Propylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
o-Xylene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:31	1
sec-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:31	1
Styrene	<0.000280		0.000500	0.000280	mg/L			06/20/13 02:31	1
tert-Butylbenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:31	1
1,1,1,2-Tetrachloroethane	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:31	1
1,1,2,2-Tetrachloroethane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1
Tetrachloroethene	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:31	1

Client Sample ID: GW-7

Lab Sample ID: 680-91116-5

Date Collected: 06/06/13 13:30

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:31	1
trans-1,2-Dichloroethene	<0.000240		0.000500	0.000240	mg/L			06/20/13 02:31	1
trans-1,3-Dichloropropene	<0.000480		0.000500	0.000480	mg/L			06/20/13 02:31	1
1,2,4-Trichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1
1,1,1-Trichloroethane	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:31	1
1,1,2-Trichloroethane	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:31	1
Trichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:31	1
Trichlorofluoromethane	<0.000230		0.000500	0.000230	mg/L			06/20/13 02:31	1
1,2,3-Trichloropropane	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:31	1
1,2,4-Trimethylbenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:31	1
1,3,5-Trimethylbenzene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:31	1
Vinyl chloride	<0.000330		0.000500	0.000330	mg/L			06/20/13 02:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*70 - 130*		*06/20/13 02:31*	*1*
1,2-Dichlorobenzene-d4	*86*		*70 - 130*		*06/20/13 02:31*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 680-91116-6

Date Collected: 06/06/13 00:00

Matrix: Water

Date Received: 06/07/13 09:45

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:53	1
Benzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:53	1
Bromobenzene	<0.000420		0.000500	0.000420	mg/L			06/20/13 02:53	1
Bromodichloromethane	<0.000100		0.000500	0.000100	mg/L			06/20/13 02:53	1
Bromoform	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:53	1
Bromomethane	<0.000450		0.00100	0.000450	mg/L			06/20/13 02:53	1
2-Butanone (MEK)	<0.00500		0.0100	0.00500	mg/L			06/20/13 02:53	1
Carbon tetrachloride	<0.000220		0.000500	0.000220	mg/L			06/20/13 02:53	1
Chlorobenzene	<0.000270		0.000500	0.000270	mg/L			06/20/13 02:53	1
Chlorobromomethane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:53	1
Chloroethane	<0.000330		0.00100	0.000330	mg/L			06/20/13 02:53	1
Chloroform	<0.000290		0.000500	0.000290	mg/L			06/20/13 02:53	1
Chloromethane	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:53	1
2-Chlorotoluene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:53	1
4-Chlorotoluene	<0.000160		0.000500	0.000160	mg/L			06/20/13 02:53	1
cis-1,2-Dichloroethene	<0.000370		0.000500	0.000370	mg/L			06/20/13 02:53	1
cis-1,3-Dichloropropene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:53	1
Dibromochloromethane	<0.000430		0.000500	0.000430	mg/L			06/20/13 02:53	1
1,2-Dibromo-3-Chloropropane	<0.000300		0.000500	0.000300	mg/L			06/20/13 02:53	1
1,2-Dichlorobenzene	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:53	1
1,3-Dichlorobenzene	<0.000140		0.000500	0.000140	mg/L			06/20/13 02:53	1
1,4-Dichlorobenzene	<0.000180		0.000500	0.000180	mg/L			06/20/13 02:53	1
Dichlorodifluoromethane	<0.000340		0.000500	0.000340	mg/L			06/20/13 02:53	1
1,1-Dichloroethane	<0.000390		0.000500	0.000390	mg/L			06/20/13 02:53	1
1,2-Dichloroethane	<0.000170		0.000500	0.000170	mg/L			06/20/13 02:53	1
1,1-Dichloroethene	<0.000320		0.000500	0.000320	mg/L			06/20/13 02:53	1
1,2-Dichloropropane	<0.000450		0.000500	0.000450	mg/L			06/20/13 02:53	1

Reference 32

TWDB.WIID
Water Well Data

MAP TOOLS Show Help on Tools

Zoom Move Select

[Layers]

Visible Active

- TWDB Groundwater Data
- Submitted Driller's Reports
- Brackish Groundwater Database
- Submitted Drillers Reports - D.I.M.s
- Groundwater Districts (updated Sept. 2013)
- Major Aquifers
- Minor Aquifers
- Regional Water Planning Areas
- Groundwater Management Areas
- River Basins
- State Hwy
- FM & RM Roads
- Other State Roads
- Interstate Hwy
- US Hwy
- 7.5' USGS Grid
- 2.5' State Grid
- Counties
- DRG

Search by State Well No.

Type a well number

Go

Search by Location

From: All

Type a place name

Go

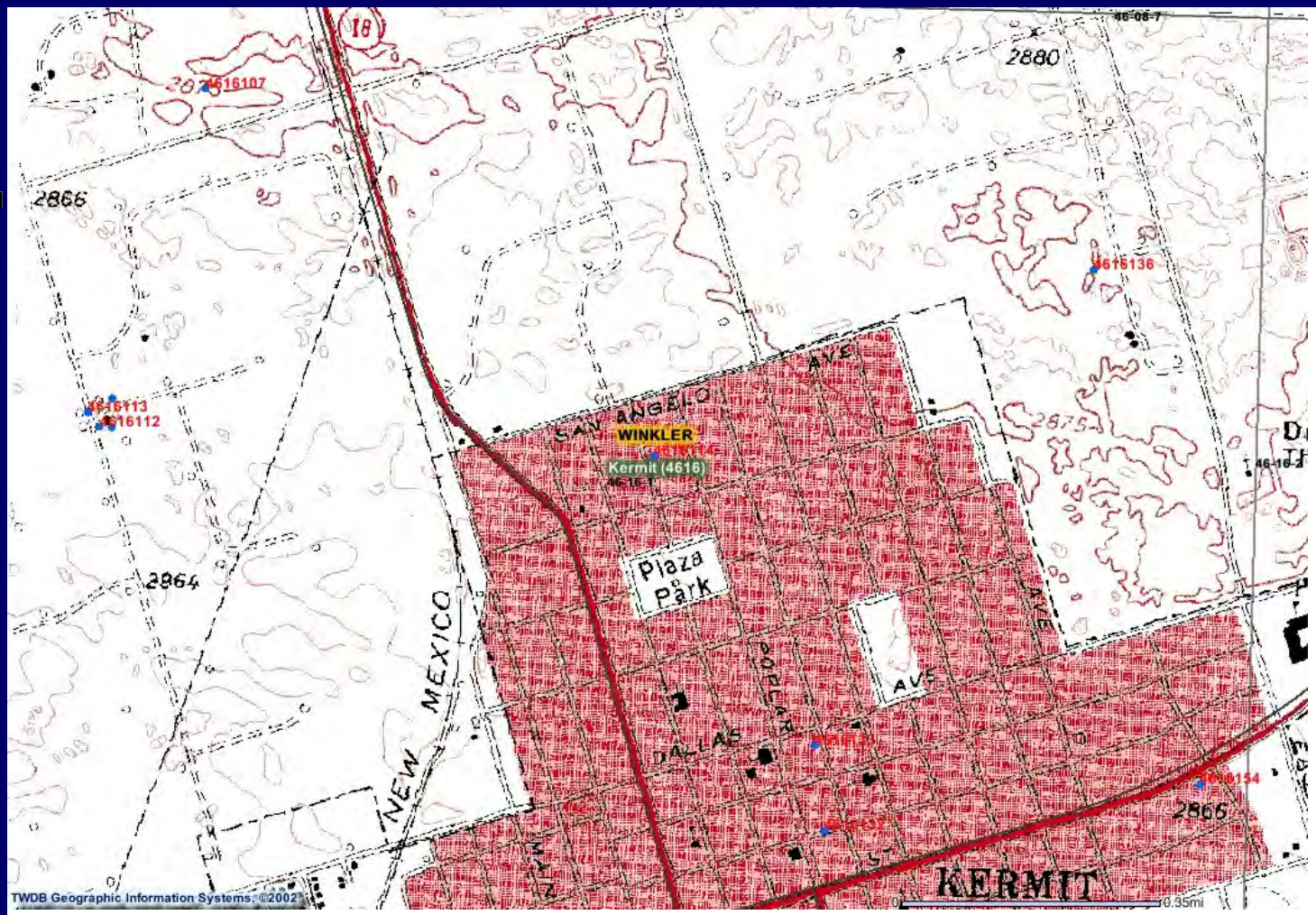
Disclaimer

32.0001

Wells in TWDB Groundwater Database - Texas

Help

Active Tool
Identify



TWDB GROUNDWATER DATA *(Explanation)*

Rec	OBJECT	State Well Number	Owner	Water Use	Elevation	Well Depth	Water Level	Water Quality	Aquifer Code	Latitude	Longitude	COUNTY_CODE	WELL_TYPE	area	len
1	201023405	4616114	Reynolds	H	2870	273	M	Y	231DCKM	315158	1030550	495	W	0	0

32.0002

TWDB.WIID
Water Well Data

MAP TOOLS Show Help on Tools

Zoom Move Select

[Layers]

Visible Active

- TWDB Groundwater Data
- Submitted Driller's Reports
- Brackish Groundwater Database
- Submitted Drillers Reports - D.I.M.s
- Groundwater Districts (updated Sept. 2013)
- Major Aquifers
- Minor Aquifers
- Regional Water Planning Areas
- Groundwater Management Areas
- River Basins
- 7.5' USGS Grid
- 2.5' State Grid
- Counties
- DRG

Search by State Well No.

Type a well number

Go

Search by Location

From: All

Type a place name

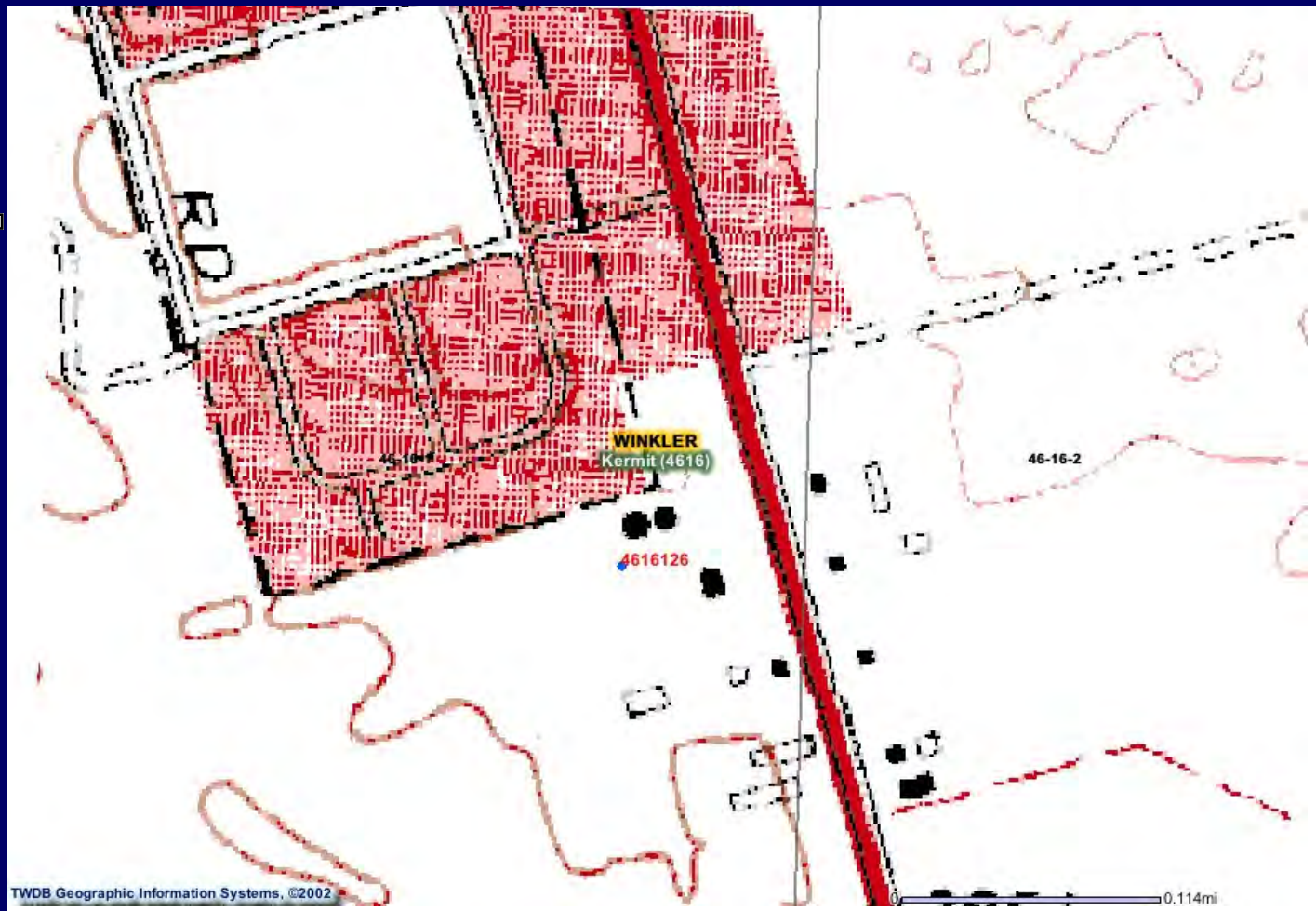
Go

Disclaimer

Wells in TWDB Groundwater Database - Texas

Help

Active Tool
Identify



32.0003

TWDB GROUNDWATER DATA *(Explanation)*

Rec	OBJECT	State Well Number	Owner	Water Use	Elevation	Well Depth	Water Level	Water Quality	Aquifer Code	Latitude	Longitude	COUNTY_CODE	WELL_TYPE	area	len
1	201023417	4616126	Rapid Transport	N	2853	256	M	Y	100CPDG	315021	1030505	495	W	0	0

Reference 33

Kandice Spera

From: John C. Shepard <dir.publicworks@cityofkermit.net>
Sent: Wednesday, February 05, 2014 8:01 PM
To: Kandice Spera
Subject: Re: Sewage Disposal Ponds

hello Kandice - believe I sent all the well info before Thanksgiving - hmmm, have been having email woes but will resend Monday - I am in Ft. Stockton rest of this week. Also, those are old City WWTP WQ0010200001 ponds - under closure as part of construction of our new WWTP WQ0010200002!

Kandice Spera <Kandice.Spera@tceq.texas.gov> wrote:

>Hi John,
>
>I hope this email finds you well. We are in the 2nd draft phase of the Preliminary Assessment Report I told you about back in November. Although I've been able to write the report without them, could you please still send the well construction logs and maps pertaining to the water system (including the aquifer map) that I requested on 11/1/2013 via email? Also, there are a few sewage disposal ponds located about 1.5-2 miles south of Kermit (see picture below). Do you know who owns these ponds? I hope to hear back from you soon.
>
>
>
>[cid:image001.png@01CF228C.9D704460] [cid:image002.jpg@01CF228C.9D704460]
>
>Thanks,
>
>Kandice Spera | Project Manager | Superfund Section- Remediation Division | Texas Commission on Environmental Quality | O: 512-239-2263 | kandice.spera@tceq.texas.gov<mailto:kandice.spera@tceq.texas.gov>
>[cid:image003.jpg@01CE0921.35C13BB0]
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