2016 Annual Groundwater Monitoring Report Former Dowell Schlumberger Facility Artesia, New Mexico

507 East Richey Avenue
Artesia, Eddy County, New Mexico

Prepared for

Schlumberger Technology Corporation and
The Dow Chemical Company

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CH2M HILL Engineers, Inc.

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Acronyms and Abbreviations

CH2M	CH2M HILL Engineers, Inc.
COC	chemical of concern
CVOC	chlorinated volatile organic compound
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
Dowell	a defunct joint venture between Schlumberger Technology Corporation and The Dow Chemical Company
GAC	granular activated carbon
mg/L	milligrams per liter
$NaMnO_4$	sodium permanganate
NMED	New Mexico Environmental Department
NMOCD	New Mexico Oil Conservation Division
NMOSE	New Mexico Office of the State Engineer
NMWQCC	New Mexico Water Quality Control Commission
PCE	tetrachloroethene
PVC	polyvinyl chloride
STC	Schlumberger Technology Corporation
site	Former Dowell Schlumberger Facility, Artesia, New Mexico
SVE	soil vapor extraction
VOC	volatile organic compound
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
USTB	Underground Storage Tank Bureau

SECTION 1

Introduction

CH2M HILL Engineers, Inc. (CH2M) has completed the 2016 groundwater monitoring program at the Former Dowell Schlumberger Facility located in Artesia, New Mexico (the site). The site is currently regulated by the New Mexico Oil Conservation Division (NMOCD) under Discharge Permit GW-114 and is located at 507 East Richey Avenue, Artesia, Eddy County, New Mexico. Based on discussions with the NMOCD (Bradford Billings/NMOCD, 2016a), Schlumberger Technology Corporation is considering creating at Stage II Abatement Plan for the site. The site location is shown in Figure 1, and the site plan is shown in Figure 2.

SECTION 2

Site Background

Section 2 provides an overview of the site background, history of operations, and geology and hydrogeology.

2.1 Site Description and History

The project site is located at 507 East Richey Avenue, Artesia, New Mexico (Figure 1) and was used as an oilfield service facility operated by Dowell Schlumberger Incorporated (Dowell; a defunct joint venture between Schlumberger Technology Corporation [STC] and The Dow Chemical Company) between 1969 and 1990 and in the early 2000s. In 1988, the New Mexico Environment Department (NMED) Underground Storage Tank Bureau (USTB) directed response actions in connection with fuel-related volatile organic compound (VOC) releases from underground storage tanks (USTs) at the site. During the early 1990s, NMOCD assumed responsibility for regulatory oversight of the facility.

In 1988, fuel-related VOC impacts to site soil and groundwater were discovered during UST removal activities and were regulated by the NMED-USTB. In 1995, a chlorinated VOC (CVOC) groundwater plume was discovered onsite near the former Wash Bay and was determined to be migrating to an adjacent downgradient property. The NMED Groundwater Protection and Remediation Bureau began oversight of the CVOC plume response and continued to regulate the pre-1995 UST impacts. In response to the discovery of the plume, Dowell purchased the downgradient property. Following the purchase of the adjacent land, it was discovered that Eddy County, New Mexico, owns right-of-way property between numerous land parcels and, as of 2015, remains the owner of the right-of-way between the two adjacent properties.

The site is currently inactive. The USTs and acid plant have been decommissioned and removed, but the office, maintenance, and storage buildings remain at the site (Figure 2). The remaining property outside the facility fence line is undeveloped other than for limited environmental-related infrastructure and an electrical transmission line owned by others.

The adjacent properties include the following:

- Artesia Alfalfa Growers Association—property to the north
- Mr. Donald Kiddy and Chase Farms—property to the east
- East Richey Avenue (NM 357) and residential—properties to the south
- Southeast Ready Mix Products—property to the west

Two prior remediation strategies, excavation and soil vapor extraction (SVE), were implemented to remove petroleum hydrocarbons and CVOCs from site groundwater and soil surrounding the former USTs, former Wash Bay, and former Acid Plant (Figure 2). During the early to mid-1990s, soil contaminated with fuel-related VOCs and CVOCs was excavated at these locations. Following soil excavation, in January 1994, SVE systems began operation at the location of the former USTs and at the former Wash Bay. The SVE system at the former USTs successfully removed fuel-related VOCs within that area, and the SVE system at that location was decommissioned in the early 2000s. The former Wash Bay SVE system was decommissioned in 2014. Between 2001 and 2002, pilot-scale zero-valent iron injections were performed in the downgradient portions of the CVOC groundwater plume. Difficulties with the zero-valent iron injections and subsurface distribution were encountered and resulted in no significant changes in CVOC concentrations in the groundwater. In 2014, in order to accelerate CVOC destruction at the site, an oxidant substrate (sodium permanganate [$NaMnO_4$]) was injected into 8 injection well locations 20 feet upgradient of monitoring well MW-25 (CH2M 2015).

A groundwater extraction and treatment system is in operation in the downgradient portion of the plume, located adjacent to monitoring wells MW-28 and MW-30. Groundwater is extracted from three extraction wells, EW-01, EW-02, and EW-03, treated using granular activated carbon (GAC), and discharged into the ground by gravity at the subsurface infiltration gallery located approximately 230 yards upgradient, adjacent to MW-31.

The following activities occurred at the site during 2016:

- Semiannual groundwater sampling events were conducted, including depth-to-water measurements.
- The groundwater extraction and treatment system operated in the downgradient portion of the plume. Approximately 5.9 million gallons of groundwater were extracted, treated, and re-infiltrated in 2016. Additionally, groundwater extraction and treatment system operations were monitored periodically and included the collection of performance monitoring samples, collection of flow rates from the extraction wells and the combined outflow, physical checks of the system, and when required, replacement of the cartridge filters and GAC.
- Daily emails were received from the onboard telemetry that reported flow rates, system pressure, total gallons through the system, and upset conditions.
- Iron biofouling was observed at extraction well EW-03 and caused the extraction pump and several components of the groundwater extraction and treatment system to corrode and fail. The extraction pump was replaced and EW-03 was rehabilitated by chemical treatment. In addition, groundwater extraction and treatment system components susceptible to corrosion, were replaced with stainless-steel components.
- Nine monitoring wells were abandoned.
- A limited soil and groundwater investigation was completed to evaluate the source of potential hydrocarbon impacts to groundwater in the vicinity of monitoring well MW-12. In September 2016, 9 soil borings were advanced to a depth of 25 feet below ground surface, and groundwater samples were collected and analyzed for tetrachloroethene (PCE), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), benzene, and naphthalene. Additionally, one soil and one groundwater sample were collected from the center of the impacted area and sent for laboratory oxidant-demand bench-scale testing. A subsequent investigation was completed in November 2016 where an additional 18 soil borings were advanced to a depth of 25 feet below ground surface. At 13 of the 18 soil borings, groundwater samples were collected and analyzed for PCE, 1,1-DCA, 1,1-DCE, benzene, and naphthalene. At five of the eighteen soil borings, only photoionization detector measurements were collected by scanning the soil cores to further evaluate hydrocarbon impacts to groundwater. The findings and recommendations from this investigation will be presented separately in a letter report to the NMOCD.

2.2 Geology and Hydrogeology

2.2.1 Regional Geology and Hydrogeology

The underlying geology in the area includes the east-dipping Permian San Andres Limestone. Overlying the Permian San Andres Limestone are the Artesia Group and Quaternary alluvium (Lyford 1973).

Artesia, New Mexico, is located in the Roswell groundwater basin. The basin is bounded to the north 20 miles north of Roswell, to the south in the Seven Rivers area between Artesia and Carlsbad, to the east by the Pecos River, and to the west roughly 20 miles west of Artesia. The Roswell groundwater basin is made up of two aquifers separated by a leaky confining layer. The upper aquifer is contained in the quartzose unit of the Quaternary alluvium, and the lower aquifer consists of the Permian San Andres

Limestone. The upper aquifer is unconfined and is composed of Quaternary alluvial valley fill. The majority of the water-producing zones in the aquifer are located in the quartzose unit. The zones are typically sand and gravel separated by adjacent zones of silt and clay. Most zones are around 20 feet thick (Welder 1983).

The leaky confining layer between the two aquifers is formed from the lower three formations of the Artesia Group, which are mudstones. The moderately permeable layers form a leaky confining layer between the lower and upper aquifers (Hendrickson and Jones 1952). The layers vary in thickness across the basin due to erosion and solution collapse. The lower aquifer is located within the San Andres Limestone and the lower part of the Artesia Group. There are five different water-bearing zones in the deep aquifer. The thickness of the aquifer ranges from 260 to 460 feet, with water-bearing zones typically 50 feet or less in thickness. In the northern part of the basin near Roswell, the middle of the San Andres Limestone is the main water-producing zone. Near Artesia, in the middle of the basin, the main zone of production is the top of the San Andres Limestone. In the southern part of the basin, the main zone of production is the lower part of the Artesia Group (Welder 1983).

The transmissivities of the two aquifers vary due to irregular fractures, solution permeability in the deep aquifer, and erratic occurrences of sand and gravel in the shallow aquifer (Hendrickson and Jones 1952). The transmissivities range from 7,500 to 196,000 square feet per day in the deep aquifer, and 4,200 to 186,000 square feet per day in the shallow aquifer (Welder 1983). The aquifer zone yields vary greatly due to groundwater moving principally through cavities and fractures (Hendrickson and Jones 1952) at various depths. As a result, it is difficult to find specific water-bearing depth intervals in the aquifer during monitoring well installation (Welder 1983). Groundwater moves from the lower aquifer to the shallow, although Welder (1983) states that flow may reverse due to heavy pumping in the lower aquifer. The estimated net rate of upward leakage is around 12,400 acre-feet per month (Welder 1983). Several water-bearing units in the leaky confining layer exist, and wells have been advanced and completed in the zones (Welder 1983). In general, in the Roswell basin, groundwater flow is to the east; however, groundwater pumping in the Artesia area has caused a depression in the potentiometric surface of nearly 90 feet.

2.2.2 Site Geology and Hydrogeology

The geology and hydrogeology beneath the site were assessed during an investigation conducted in March 1995 by Western Water Consultants, Inc. Observations made during drilling activities described the predominant lithologies to consist of light-brown to reddish-brown silt and silty clay, interbedded with clay layers and stringers of carbonate rubble. The very fine-grained sediments were deposited in an arid, alluvial overbank environment and can be expected to be more laterally continuous than coarse-grained alluvial channel deposits (Western Water Consultants, Inc. 1995). The carbonate layers are believed to be the result of the evaporation of water containing elevated concentrations of dissolved solids. The 1995 investigation arrived at the conclusion that the stringers of carbonate rubble constitute the primary water-bearing zones. The rubble layers were observed at depths ranging from 20 to 26 feet below ground surface (Western Water Consultants, Inc. 1995).

2.3 Modifications to the Sitewide Activities

Modifications to the sitewide activities were requested in 2016. The modifications are described in the following paragraphs.

The *2015 Annual Groundwater Monitoring Report* (CH2M 2016a), submitted to the NMOCD on March 28, 2016, recommended the following modifications to the groundwater monitoring program:

- Abandonment of 15 monitoring wells.
- Groundwater sampling to include only analyses for 1,1-DCA, 1,1-DCE, benzene, PCE, naphthalene, and dissolved manganese.

- Installation of a temporary monitoring point, located approximately 100 feet downgradient of MW-28 and MW-29, to refine the extent of the plume and determine the extent of plume capture from the groundwater extraction and treatment system.

These modifications were conditionally approved by the NMOCD in a letter dated April 14, 2016 (Bradford Billings/NMOCD 2016a) (Appendix A). The conditional approval only approved abandonment of 9 of the 15 monitoring wells. The following monitoring wells were approved for abandonment:

- MW-1
- MW-6
- MW-7
- MW-9
- MW-10
- MW-16
- MW-19
- MW-23
- MW-27

On February 16, 2016, a *Results of HydraSleeve Comparison Study* (CH2M 2016b) was submitted to the NMOCD recommending the collection of groundwater samples using HydraSleeves. The comparison study was conditionally approved by NMOCD in an e-mail dated April 11, 2016 (Bradford Billings/2016b) (Appendix A). The conditions of approval included the following:

- HydraSleeves will not be left in monitoring wells between sampling events and a new sleeve must be used for each sample.
- The total well depth will be measured at each monitoring well during groundwater sampling events.
- While sampling each monitoring well, the HydraSleeve should be examined for material/detritus/organic matter. If found in the HydraSleeve, a disposable bailer should be used to remove the material.
- If a dramatic increase or decrease in concentrations of chemicals of concern (COCs) is observed in a given monitoring well, the NMOCD may require a recheck via resampling for verification of unusual data behavior.

SECTION 3

2016 Site Activities

Section 3 summarizes the 2016 groundwater monitoring and treatment site activities.

3.1 Groundwater Monitoring Activities

The following subsections summarize the activities conducted during the semiannual groundwater monitoring events.

3.1.1 Depth-to-Water Measurements and Groundwater Sampling

Depth-to-water measurements were collected at 18 of the 27 site monitoring wells in April and October. The first semiannual groundwater sampling event was conducted in April and included groundwater sample collection from 15 of the 27 site monitoring wells (MW-12, MW-15, MW-17C, MW-18, MW-21, MW-22, MW-25, MW-26, MW-28, MW-29, MW-30, MW-31, MW-32, MW-33, and MW-34). The second semiannual groundwater sampling event included groundwater sample collection from 18 of the 27 site wells (MW-08, MW-11, MW-12, MW-15, MW-17C, MW-18, MW-20, MW-21, MW-22, MW-25, MW-26, MW-28, MW-29, MW-30, MW-31, MW-32, MW-33, and MW-34).

Groundwater samples were collected using HydraSleeves and submitted for laboratory analysis of the target list of VOCs, presented in Section 2.3, by the U.S. Environmental Protection Agency (USEPA) SW-846 Method 8260B. During the April and October sampling events, groundwater samples from 11 monitoring wells were submitted for laboratory analysis of dissolved manganese by USEPA Method 6020, as a condition of NMOCD Discharge Permit Amendment Approval to inject $NaMnO_4$ at the site.

Following the collection of groundwater samples, residual groundwater in the HydraSleeve was placed into a 5-gallon bucket and transferred to the groundwater treatment system for treatment and re-infiltration.

3.2 Groundwater Extraction and Treatment System Operations and Maintenance Site Visits

General maintenance and physical checks of the groundwater extraction and treatment system were completed quarterly, in February, April, July, and October. During the maintenance site visits, the completed activities included the collection of flow rates from the extraction wells and the combined outflow, physical inspection of the system to observe for leaks and/or upset conditions, and replacement of the cartridge filters when required. In addition, during November 2016, the GAC vessels were drained, and the GAC was replaced. Spent GAC was transported offsite for reactivation.

3.3 Extraction Well Rehabilitation

Several plumbing components of the groundwater extraction and treatment system, including the EW-03 extraction pump, corroded and failed due to biofouling by iron reducing bacteria. The extraction pump and galvanized steel plumbing components were replaced. To reduce the growth of iron-reducing bacteria at EW-03, the well was rehabilitated by chemical treatment. Rehabilitation of the well included brushing/swabbing of the well casing and screen to physically remove the bacterial deposits, removal of debris using a bailer, and placement of NuWell chemical solution into the well screen. NuWell is a biodegradable chemical acid approved for use in potable water systems, which moderates biological growth and cleans iron deposits from the well. After placement of NuWell chemical solution, the well screen and sand pack was swabbed and surged. The NuWell chemical solution was left in the well screen

and sand pack overnight. The following day, the well screen and sand pack were swabbed, surged, and bailed to remove debris that accumulated overnight. Groundwater and NuWell chemical solution bailed from EW-03 was contained in a polyethylene tank and transferred to the groundwater extraction and treatment system for treatment and re-infiltration.

3.4 Monitoring Well Abandonments

During November 2016, nine monitoring wells were abandoned (MW-1, MW-6, MW-7, MW-9, MW-10, MW-16, MW-19, MW-23, and MW-27) in accordance with the requirements of the New Mexico Office of the State Engineer (NMOSE). The monitoring wells were abandoned by grouting with a cement-bentonite grout slurry consisting of 95 percent Portland cement and 5 percent sodium bentonite. Grout was emplaced in the polyvinyl chloride (PVC) screen and casing from bottom to top using a tremie pipe. The surface completions (i.e., well pad, protective casing, PVC casing) of the wells were removed, and the top 3 feet of the well below ground was filled with a Portland cement plug. The cement plug was finished flush with the ground surface.

The NMOSE abandonment permits are presented in Appendix B.

SECTION 4

Results and Discussion

4.1 Groundwater Elevation and Gradient

Higher localized groundwater elevations were observed at the location of the gravity infiltration trench adjacent to MW-31, as shown in Figures 3 and 4 as an area of groundwater mounding. An area of localized depressed groundwater elevations was observed near the northern boundary of the site (MW-28, MW-29, and MW-30) during both semiannual sampling events, attributable to the groundwater extraction from the extraction and treatment system. Beyond the localized variations, the overall groundwater gradient was 0.0056 foot per foot for the April event, with the overall direction of groundwater flow to the northeast. The overall groundwater gradient was 0.0054 foot per foot for the October event, with the overall direction of groundwater flow to the northeast. The gradient and groundwater flow direction are consistent with previous reports.

Table 1 contains the 2016 groundwater elevation data. The groundwater elevation increased slightly across the site between the April and October sampling events. The groundwater elevation was abnormally high during the end of 2014 and beginning of 2015 due to significantly increased rainfall in the area from tropical storms and a broken water line adjacent to the decommissioned SVE system at the Former Wash Bay. At the time of the October 2016 sampling event, groundwater elevations at the site had returned to historically observed elevations. Please refer to previous reports for historical groundwater elevation data. Potentiometric surface maps depicting the groundwater elevation measured during each of the 2016 semiannual monitoring events are provided in Figures 3 and 4.

4.2 Groundwater Analytical Results

Table 2 summarizes the groundwater analytical results for 2016. Please refer to previous annual reports for historical groundwater analytical data. The 2016 laboratory analytical reports are in Appendix C. The groundwater analytical results have been compared to the New Mexico Water Quality Control Commission (NMWQCC) standards, where applicable, which are shown in Table 2. Table 2 generally follows the data format of prior annual reports. Figures 5, 6, 7, 8, and 9 present concentrations in groundwater for only the COCs that exceeded NMWQCC standards during a given semiannual event. The extent of the exceedance of the NMWQCC standard is shown as an isopleth line on each figure. The following discussion summarizes the COCs distribution at the site.

Concentrations of benzene exceeded the NMWQCC standard of 0.01 mg/L during both the April and October sampling event at MW-12 (Figure 5). Detected benzene concentrations are limited to this area. In comparison to historical benzene data at MW-12, concentrations of benzene have increased since October 2012, and benzene concentrations have exceeded the NMWQCC standard since November 2015.

The concentration of naphthalene exceeded the NMWQCC standard of 0.03 mg/L during both the April and October sampling events at MW-12 (Figure 6). Naphthalene concentrations are limited to the area where benzene concentrations have previously exceeded NMWQCC standards. In comparison to historical naphthalene data at MW-12, concentrations of naphthalene have increased since October 2013, and naphthalene concentrations have exceeded the NMWQCC standard since April 2014.

Concentrations of 1,1-DCA exceeded the NMWQCC standard of 0.025 milligram per liter (mg/L) during the April and October sampling events at MW-12 (Figure 7). While concentrations of 1,1-DCA remained steady or decreased between the April and October groundwater sampling events the NMWQCC standard was not exceeded at other wells located in the upgradient plume.

The concentration of PCE exceeded the NMWQCC standard of 0.02 mg/L during the April sampling event at MW-28 and both the April and October sampling events at MW-29 (Figure 8). The exceedances are limited to the downgradient plume located outside the facility proper. Concentrations of PCE remained generally steady or decreased between the April and October groundwater sampling events. In comparison to historical PCE data at MW-28, concentrations of PCE have remained steady since October 2011. Conversely, PCE concentrations at MW-29 have increased since 2013 and were below the NMWQCC standard until April 2016.

Concentrations of 1,1-DCE exceeded the NMWQCC standard of 0.005 mg/L in multiple wells (MW-28, MW-29, and MW-34) during the April and October sampling events (Figure 9). The exceedances are limited to the downgradient plume located outside the facility proper. At wells where concentrations of 1,1-DCE exceeded the NMWQCC standard, concentrations increased slightly or remained stable between the April and October sampling events. However, in comparison to historical 1,1-DCE data for the downgradient plume, concentrations have decreased overall since the $NaMnO_4$ injections in 2014 and increased groundwater extraction in 2015. Concentration graphs for 1,1-DCE in downgradient plume monitoring wells over time are presented on Figure 10.

Dissolved manganese samples were collected for analyses during the April and November sampling events to demonstrate that the injection of $NaMnO_4$ into the groundwater did not increase the concentration of manganese in the aquifer beyond the target treatment zone. Manganese was positively detected in 5 of 22 samples collected during both semiannual groundwater sampling events, and no exceedances of the NMQWCC standard were reported.

4.3 Groundwater Extraction and Treatment System

During 2016, the groundwater extraction and treatment system shut down twice due to the biofouling discussed in Section 3.3. The iron-reducing bacteria corroded the galvanized steel pieces of the pressure relief valves on the cartridge filter housings. Groundwater leaking from the corroded cartridge filter housings was contained in the secondary containment basin, the wet floor alarm was triggered, and the system shut down. Galvanized steel plumbing components were replaced with stainless-steel plumbing components, and the system continues to operate as designed. Water remained contained inside the secondary containment and was transferred into the groundwater extraction and treatment system after the repairs were made.

SECTION 5

Conclusions and Recommendations

The conclusions and recommendations outlined in this section are presented relative to groundwater conditions at the site, based on the potentiometric and analytical data obtained during the 2016 site activities.

5.1 Conclusions

Groundwater monitoring has been conducted at the site since 1991. With the exception of benzene and naphthalene in MW-12 and 1,1-DCE and PCE in MW-29, the groundwater concentrations reported in the calendar year 2016 groundwater monitoring period were stable or showed decreasing concentrations compared to historical data. With the exception of naphthalene which is an order of magnitude above the standard, VOCs that persist are slightly above NMWQCC standards.

5.2 Recommendations for Future Activities

5.2.1 Install Temporary Downgradient Groundwater Sampling Point

The presence of 1,1-DCE and PCE downgradient of MW-28 and MW-29 is not currently known, and an analysis of the capture zone for extraction well EW-03, located adjacent to monitoring well MW-28, cannot be completed without a downgradient groundwater elevation point. A temporary groundwater sampling point is proposed to be located, installed, and surveyed approximately 100 feet downgradient of MW-28 and MW-29 to refine the extent of the plume and determine the extent of plume capture from the groundwater extraction and treatment system.

The proposed temporary groundwater sampling point will be located on property owned by the Artesia Alfalfa Growers Association. STC has recently secured an access agreement with the Artesia Alfalfa Growers Association for access to their property for the purposes of installing and sampling a single temporary groundwater sampling point. The sampling point will be constructed as a temporary monitoring well and is expected to be installed and sampled in early 2017.

5.2.2 Groundwater Monitoring

The groundwater monitoring program will continue semiannually. Monitoring wells where there have been no exceedances of NMWQCC standards for at least the past two years ending October 2016 should be abandoned, following NMOSE requirements. Monitoring wells recommended for abandonment are:

- MW-8
- MW-11
- MW-26
- MW-33

Table 3 presents analytical data from the last eight (8) sampling events at each monitoring well proposed for abandonment. As presented in Table 3 no analytes have exceeded the respective NMWQCC standard since at least 2013. Historical data for each of the monitoring wells proposed for abandonment was reviewed to assess potential trends in analyte concentrations that may not be present when utilizing data from the previous eight sampling events. At monitoring wells MW-8, MW-11, and MW-33, no compound has exceeded the standard in the previous eight sampling events. At MW-26, no compound has exceeded the standard since 2013.

5.2.3 Operations and Maintenance of the Groundwater Extraction and Treatment System

Automated daily system monitoring and notifications by email will continue, and site visits to evaluate and repair upset conditions will be made as necessary.

Visits to the site to conduct maintenance on the groundwater extraction and treatment system will continue quarterly.

SECTION 6

References

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Tables

TABLE 1

Groundwater Elevation Data—2016

2016 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

Well ID	Date	Total Depth (ft btoc)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)
MW-8	4/27/16	35	3359.43	13.77	3345.66
	10/12/16			14.21	3345.22
MW-11	4/27/16	30	3356.16	10.81	3345.35
	10/12/16			10.80	3345.36
MW-12	4/27/16	25.7	3356.45	10.72	3345.73
	10/12/16			10.61	3345.84
MW-15	4/27/16	34	3357.65	10.82	3346.83
	10/12/16			10.60	3347.05
MW-17C	4/27/16	62.44	3356.49	10.75	3345.74
	10/12/16			10.64	3345.85
MW-18	4/27/16	30.09	3356.65	11.53	3345.12
	10/12/16			11.64	3345.01
MW-20	4/27/16	28	3359.05	15.45	3343.60
	10/12/16			15.73	3343.32
MW-21	4/27/16	17.41	3356.83	13.65	3343.18
	10/12/16			13.86	3342.97
MW-22	4/27/16	15.63	3355.11	12.86	3342.25
	10/12/16			12.78	3342.33
MW-25	4/27/16	27.3	3355.61	14.63	3340.98
	10/12/16			14.41	3341.20
MW-26	4/27/16	27.35	3354.14	13.95	3340.19
	10/12/16			13.58	3340.56
MW-28	4/27/16	27.94	3355.88	17.82	3338.06
	10/12/16			17.47	3338.41
MW-29	4/27/16	20.25	3354.99	17.30	3337.69
	10/12/16			17.16	3337.83
MW-30	4/27/16	27.89	3354.53	17.15	3337.38
	10/12/16			17.54	3336.99
MW-31	4/27/16	30.89	3356.32	10.64	3345.68
	10/12/16			10.78	3345.54
MW-32	4/27/16	38.85	3354.46	15.61	3338.85
	10/12/16			15.28	3339.18
MW-33	4/27/16	35	3349.63	14.06	3335.57
	10/12/16			13.46	3336.17
MW-34	4/27/16	32	NM	15.49	NM
	10/12/16			15.40	NM

NOTES:

ft amsl = feet above mean sea level

ft btoc = feet below top of casing

NM = not measured, MW-34 has not been surveyed; groundwater elevation in ft amsl is not calculated.

TABLE 2

Summary of Groundwater Analytical Results—2016

2016 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

	ANALYTE	Manganese, dissolved	1,1-DCA	1,1-DCE	Benzene	Naphthalene	PCE
	UNITS	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	NMWQCC STANDARDS	0.2	0.025	0.005	0.01	0.03	0.02
WELL NUMBER	SAMPLE DATE						
MW-8	10/12/2016	--	**0.00416**	**0.000733 J**	<0.000176	<0.000603	**0.000749 J**
MW-11	10/12/2016	--	**0.00548 J**	<0.000192	<0.000176	<0.000129	**0.000898 J**
MW-12	4/28/2016	--	**0.0588**	<0.00384	**0.0323**	**0.111 J**	<0.000333
	10/12/2016	--	**0.0595**	**0.0044**	**0.0485**	**0.296**	**0.00232 J**
MW-15	4/28/2016	--	**0.000354 J**	<0.000192	<0.000176	**0.000342 J**	<0.000333
	10/12/2016	--	<0.000168	<0.000192	<0.000176	<0.000582	<0.000333
MW-17C	4/28/2016	--	**0.000267 J**	**0.000397 J**	<0.000176	<0.000129	<0.000333
	10/12/2016	--	**0.000359 J**	**0.000557 J**	<0.000176	<0.000646	<0.000333
MW-18	4/28/2016	<0.0116	**0.000398 J**	**0.00148**	<0.000176	<0.000129	**0.00156**
	10/12/2016	**0.0177 J**	**0.000427 J**	**0.00175**	<0.000176	<0.00118	**0.00196 J**
MW-20	10/12/2016	--	**0.00811**	**0.000866 J**	<0.000176	<0.000962	**0.00178 J**
MW-21	4/28/2016	<0.0116	<0.000168	<0.000192	<0.000176	<0.000129	<0.000333
	10/12/2016	<0.0116	<0.000168	<0.000192	<0.000176	<0.000882	<0.000333
MW-22	4/28/2016	**0.0145 J**	**0.00131**	**0.002**	<0.000176	<0.000129	**0.00396**
	10/12/2016	**0.0434 J**	**0.00117**	**0.00151**	<0.000176	<0.000609	**0.00431 J**
MW-25	4/28/2016	<0.0116	**0.00178**	**0.00438**	<0.000176	<0.000129	**0.00532**
	10/12/2016	**0.156**	**0.00113**	**0.00392**	<0.000176	<0.000129	**0.00521 J**
MW-26	4/28/2016	<0.0116	**0.00193**	**0.00467**	<0.000176	<0.000129	**0.00442**
	10/12/2016	**0.0353 J**	**0.000336 J**	**0.00101**	<0.000176	<0.000129	**0.00111 J**
MW-28	4/28/2016	<0.0116	**0.00712**	**0.0148**	<0.000176	<0.000129	**0.0202**
	10/12/2016	<0.0116	**0.00549**	**0.012**	<0.000176	<0.000129	**0.0175 J**
MW-29	4/28/2016	<0.0116	**0.00965**	**0.021**	<0.000176	<0.000129	**0.0248**
	10/12/2016	<0.0116	**0.0099**	**0.0332**	<0.000176	<0.000129	**0.0238 J**
MW-30	4/28/2016	<0.0116	**0.00487**	**0.00405**	<0.000176	<0.000129	**0.0109**
	10/12/2016	<0.0116	**0.00283**	**0.00473**	<0.000176	<0.000129	**0.00592 J**
MW-31	4/28/2016	<0.0116	<0.000168	<0.000192	<0.000176	<0.000129	<0.000333
	10/12/2016	<0.0116	**0.000317 J**	<0.000192	<0.000176	<0.000129	<0.000333
MW-32	4/28/2016	<0.0116	**0.00129**	**0.000649 J**	<0.000176	<0.000129	**0.0028**
	10/13/2016	<0.0116	**0.00115**	<0.000192	<0.000176	<0.000129	**0.00291 J**
MW-33	4/28/2016	--	<0.000168	<0.000192	<0.000176	<0.000129	<0.000333
	10/13/2016	--	<0.000168	<0.000192	<0.000176	<0.000129	<0.000333
MW-34	4/28/2016	<0.0116	**0.00259**	**0.00589**	<0.000176	<0.000129	**0.00661**
	10/12/2016	<0.0116	**0.002**	**0.00694**	<0.000176	<0.000129	**0.00505 J**

NOTES:

Analytical methods used USEPA SW-846 Method 8260 (VOCs) and USEPA Method 6020 (dissolved manganese)

Detected results in bold font

Results equal to or exceeding NMWQCC Standards in bold font and shaded

-- = sample not collected for specific analyte

<0.001 = chemical not detected at concentration above instrument detection limit

1,1-DCA = 1,1-dichloroethane

1,1-DCE = 1,1-dichloroethene

J = chemical detected at concentration above instrument detection limit but below method detection limit

mg/L = milligrams per liter (equivalent to parts per million)

NMWQCC = New Mexico Water Quality Control Commission

PCE = tetrachloroethene

USEPA = U.S. Environmental Protection Agency

VOC = volatile organic compound

TABLE 3

Summary of Historical Analytical Data for Monitoring Wells Proposed for Abandonment

2016 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

Analyte		BENZENE	ETHYLBENZENE	TOLUENE	TOTAL XYLENES	NAPHTHALENE	1,1-DCA	1,2-DCA	1,1-DCE	TOTAL 1,2-DCE	1,1,1-TCA	TCE	PCE	CHLOROETHANE
NMWQCC Standard		0.010 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	0.03 mg/L	0.025 mg/L	0.01 mg/L	0.005 mg/L	N/A	0.06 mg/L	0.1 mg/L	0.02 mg/L	N/A
Well Number	**Sample Date**													
MW-8	10/17/12	< 0.001	<0.001	<0.001	<0.001	<0.001	**0.002**	<0.001	**0.002**	<0.001	<0.001	**0.001**	**0.003**	<0.001
	01/24/13	<0.001	<0.001	<0.001	<0.001	<0.001	**0.002**	<0.001	**0.002**	<0.001	<0.001	**0.001**	**0.002**	<0.001
	04/16/13	<0.001	<0.001	<0.001	<0.001	<0.001	**0.003**	<0.001	**0.002**	<0.001	<0.001	**0.001**	**0.002**	<0.001
	07/24/13	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	**0.00192**	<0.00014	**0.00167**	**0.000408 J**	<0.00015	**0.00567**	**0.0162**	<0.00008
	10/16/13	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	**0.00213**	<0.00014	**0.00133**	<0.00006	<0.00015	<0.00018	<0.00013	<0.00008
	10/17/14	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	**0.00206**	<0.00014	**0.00125**	**0.000354 J**	<0.00015	**0.001**	**0.00181**	<0.00008
	11/04/15	**0.000287 J**	< 0.000212	< 0.000198	< 0.000366	< 0.000129	**0.00409**	< 0.000116	**0.000829 J**	**0.000361**	< 0.000209	**0.00192**	**0.000831 J**	< 0.00024
	10/12/16	<0.000176	--	--	--	<0.000603	**0.004**	--	**0.000733 J**	--	--	--	**0.000749 J**	--
MW-11	10/17/12	<0.001	<0.001	<0.001	<0.001	<0.0001	**0.002**	<0.001	<0.001	<0.001	<0.001	<0.001	**0.001**	<0.001
	1/24/13	<0.001	<0.001	<0.001	<0.001	<0.0001	**0.0025**	<0.001	<0.001	<0.001	<0.001	**0.0013**	**0.0019**	<0.001
	4/16/13	<0.001	<0.001	<0.001	<0.001	<0.0001	**0.0042**	<0.001	**0.0012**	<0.001	<0.001	**0.0012**	**0.0025**	<0.001
	7/23/13	<0.001	<0.001	<0.001	<0.001	<0.000320	**0.00211**	<0.001	**0.000548**	<0.001	<0.001	**0.000934**	**0.00205**	<0.001
	10/16/13	<0.00008	<0.00011	<0.00015	<0.00026	<0.000320	**0.00165**	<0.00014	<0.00019	<0.00006	<0.00015	<0.00018	<0.00013	<0.00008
	10/14/14	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	**0.000253 J**	<0.00014	<0.00019	<0.00006	<0.00015	**0.000211 J**	<0.00013	<0.00008
	11/4/15	< 0.000176	< 0.000212	< 0.000198	< 0.000366	< 0.000129	**0.00427**	< 0.000116	**0.000297 J**	< 0.000157	< 0.000209	**0.00108**	**0.000481 J**	< 0.00024
	10/12/16	<0.000176	--	--	--	<0.000129	**0.00548 J**	--	<0.000192	--	--	--	**0.000898 J**	--
MW-26	7/24/13	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	<0.00011	<0.00014	**0.000501 J**	<0.00006	<0.00015	**0.00026 J**	**0.000488 J**	<0.00008
	10/15/13	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	**0.000125 J**	<0.00014	**0.000711 J**	**0.000175 J**	<0.00015	**0.00785**	**0.0357**	<0.00008
	4/8/14	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	**0.000219 J**	<0.000147	**0.0011**	<0.00006 J	<0.00015	**0.000369 J**	**0.000959 J**	<0.00008 J
	10/16/14	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	**0.000136 J**	<0.00014	**0.000964 J**	<0.00006	<0.00015	**0.000384 J**	**0.000261 J**	<0.00008
	4/23/15	< 0.000176	< 0.000212	< 0.000198	< 0.000366	< 0.000129	**0.000271 J**	< 0.000116	**0.00188**	< 0.000157	< 0.000209	**0.000558 J**	**0.00104**	< 0.00024
	11/3/15	< 0.000176	< 0.000212	< 0.000198	< 0.000366	< 0.000129	**0.000178 J**	< 0.000116	**0.00081 J**	< 0.000157	< 0.000209	**0.000334 J**	**0.000708 J**	< 0.00024
	4/28/16	<0.000176	--	--	--	<0.000129	**0.00193**	--	**0.00467**	--	--	--	**0.00442**	--
	10/12/16	<0.000176	--	--	--	<0.000129	**0.000336 J**	--	**0.00101**	--	--	--	**0.00111 J**	--
MW-33	7/23/13	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	10/14/13	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	<0.00011	<0.00014	<0.00019	<0.00006	<0.00015	**0.000248 J**	**0.000456 J**	<0.00008
	4/8/14	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	<0.00011	<0.00014	<0.00019	<0.00006 J	<0.00015	<0.00018	<0.00013	<0.00008 J
	10/15/14	<0.00008	<0.00011	<0.00015	<0.00026	<0.00032	<0.00011	<0.00014	<0.00019	<0.00006	<0.00015	<0.00018	<0.00013	<0.00008
	4/23/15	< 0.000176	< 0.000212	< 0.000198	< 0.000366	< 0.000129	< 0.000168	< 0.000116	< 0.000192	< 0.00016	< 0.000209	< 0.000138	< 0.000514	< 0.000119
	11/3/15	< 0.000176	< 0.000212	< 0.000198	< 0.000366	< 0.000129	< 0.000168	< 0.000116	< 0.000192	< 0.00016	< 0.000209	< 0.000138	< 0.000333	< 0.000119
	4/28/16	<0.000176	--	--	--	<0.000129	<0.000168	--	<0.000192	--	--	--	<0.000333	--
	10/13/16	<0.000176	--	--	--	<0.000129	<0.000168	--	<0.000192	--	--	--	<0.000333	--

NOTES:

Analytical methods used USEPA Method 8260 (VOCs)

Concentrations presented in mg/L

Detected results in bold font

Results equal to, or exceeding, NMWQCC Standards in bold font and shaded

-- = sample not collected for specific analyte

<0.001 = chemical not detected at concentration above instrument detection limit

1,1-DCA = 1,1-dichloroethane

1,2-DCA = 1,2-dichloroethane

1,1-DCE = 1,1-dichloroethene

1,2-DCE = 1,2-dichloroethene

1,1,1-TCA = 1,1,1-trichloroethane

J = chemical detected at concentration above instrument detection limit but below method detection limit

mg/L = milligrams per liter (equivalent to parts per million)

N/A = not applicable

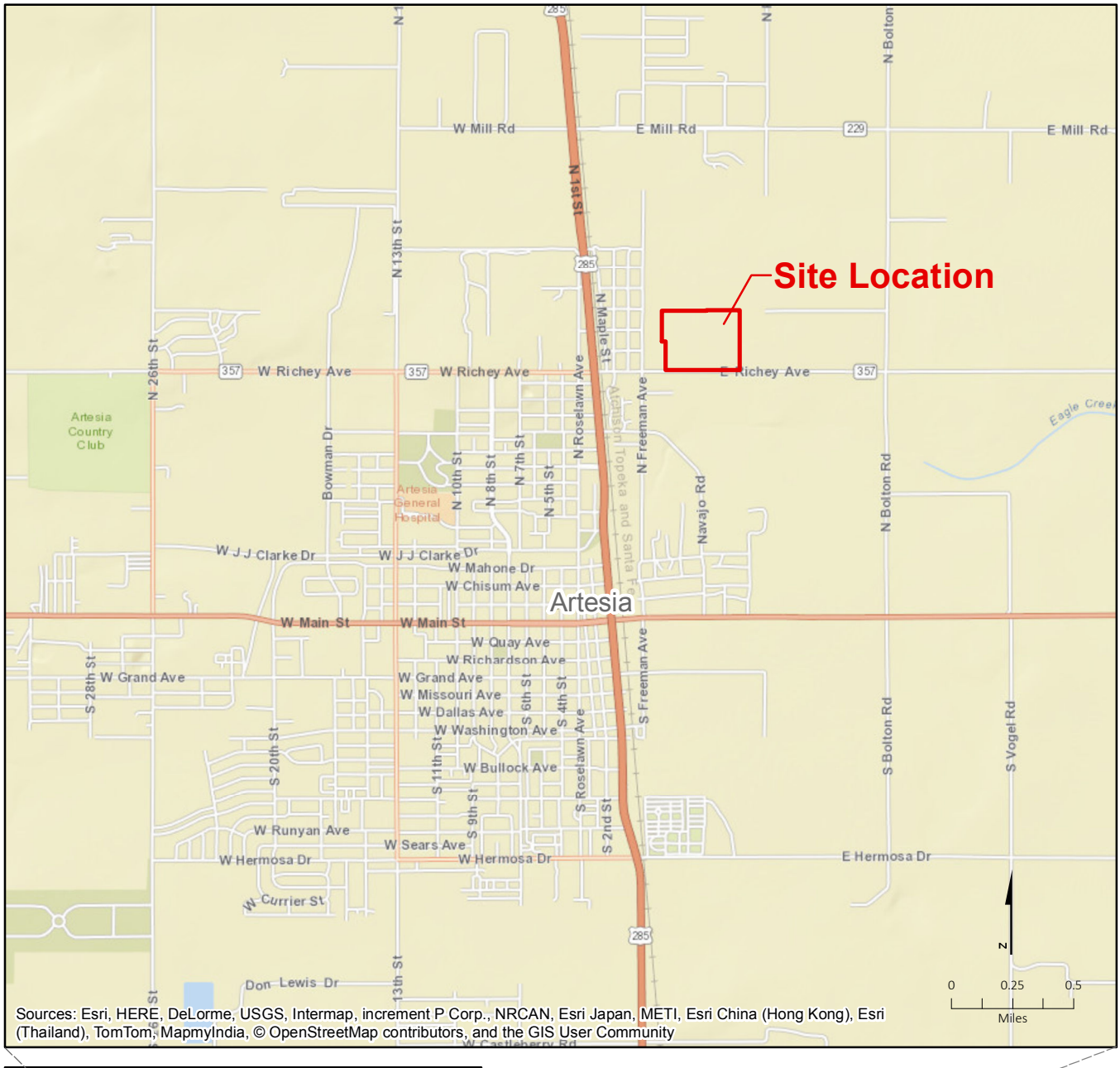
NMWQCC = New Mexico Water Quality Control Commission

TCE = trichloroethene

PCE = tetrachloroethene

USEPA = U.S. Environmental Protection Agency

Figures



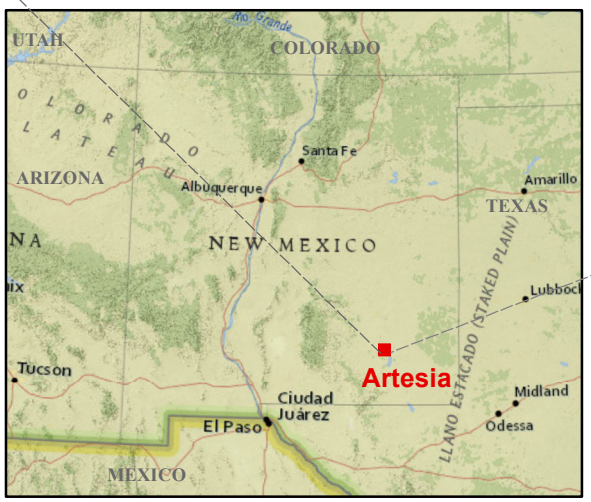
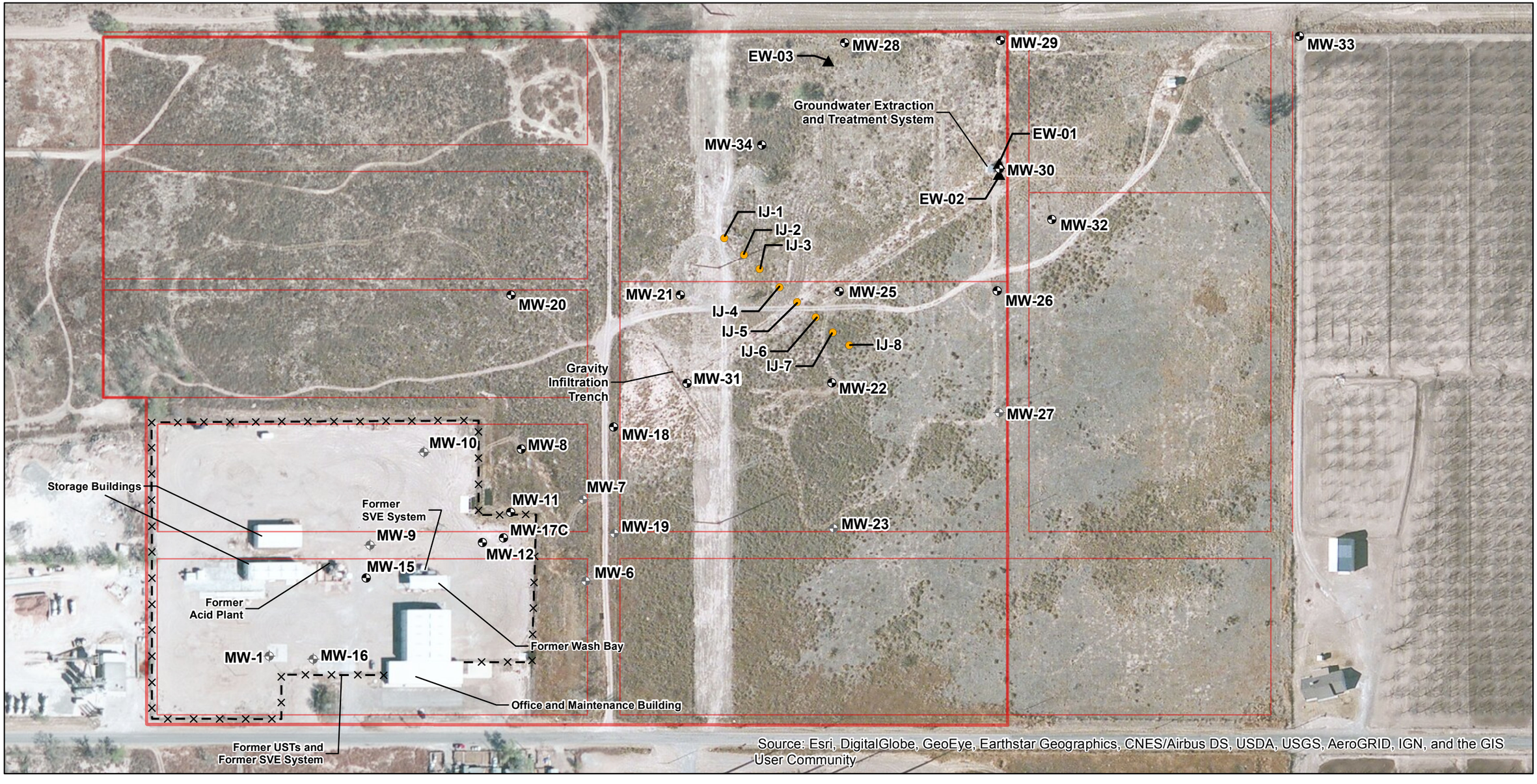


Figure 1
Site Location Map
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



LEGEND

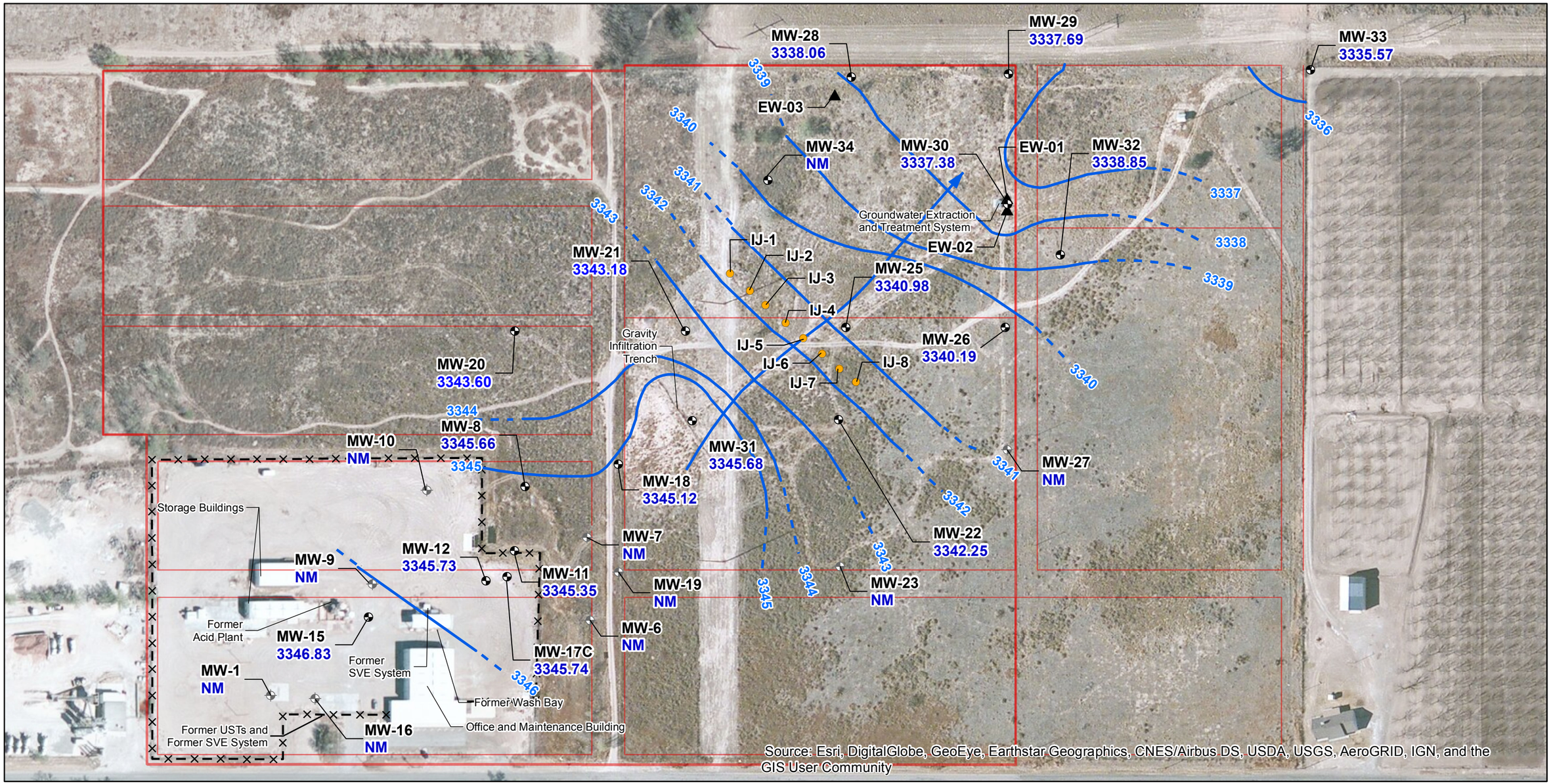
- Property Line
- Right of Way Boundary
- Fence
- Groundwater Extraction Well
- Injection Well
- Monitoring Well
- Monitoring Well Abandoned in November 2016

Notes:
SVE = soil vapor extraction
UST = underground storage tank

N

0 100 200
Feet

Figure 2
Site Plan
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



LEGEND

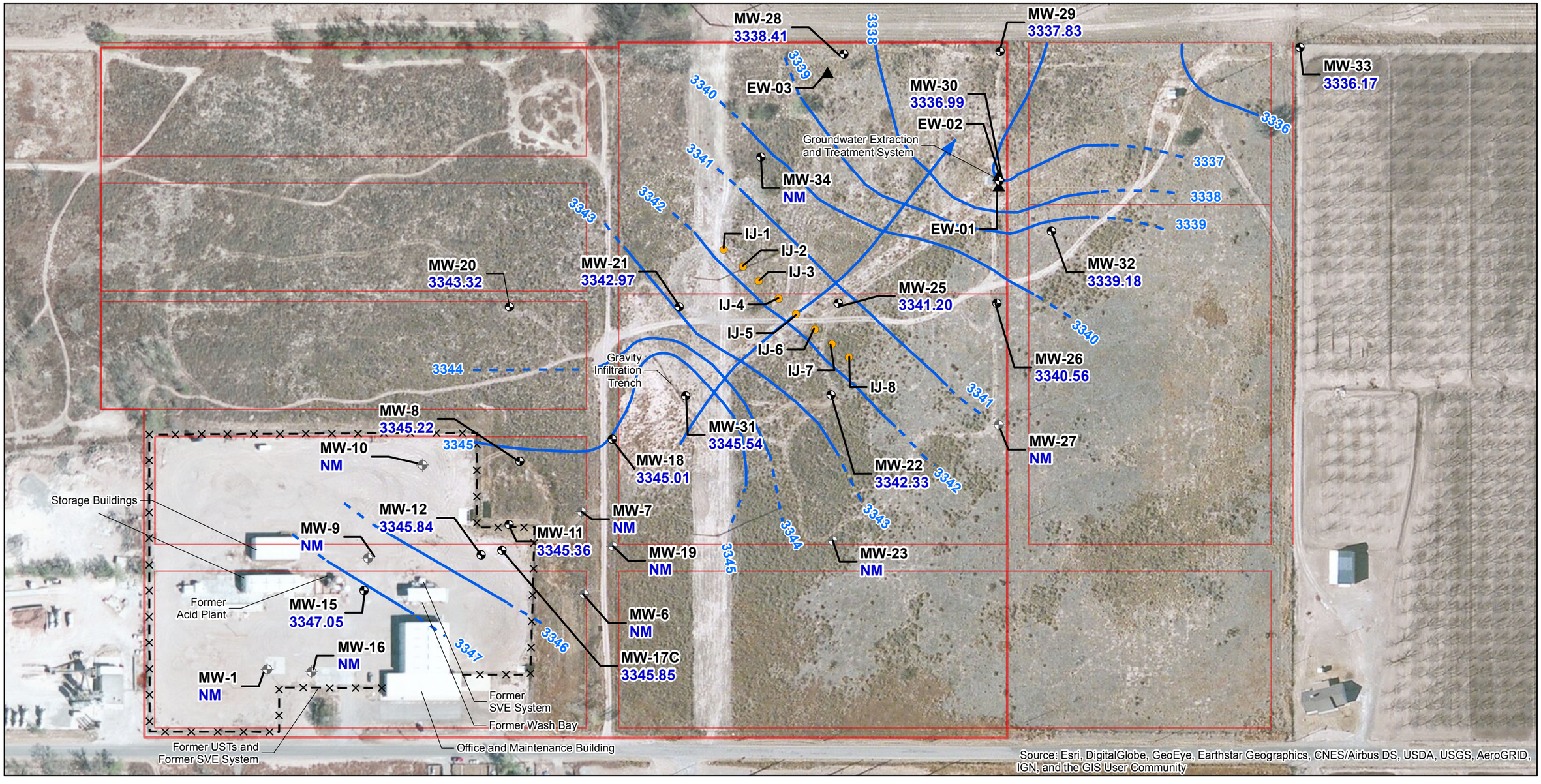
- Property Line
- Right of Way Boundary
- Fence
- Groundwater Extraction Well
- Injection Well
- Monitoring Well
- Monitoring Well Abandoned in November 2016
- 3340.00 Groundwater Elevation (ft amsl)
- NM Not Measured
- Groundwater Elevation Contour (dashed where inferred)
- Groundwater Flow Direction

Notes:
ft amsl = feet above mean sea level
SVE = soil vapor extraction
UST = underground storage tank

N

0 100 200
Feet

Figure 3
Potentiometric Surface Map - April 2016
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



LEGEND

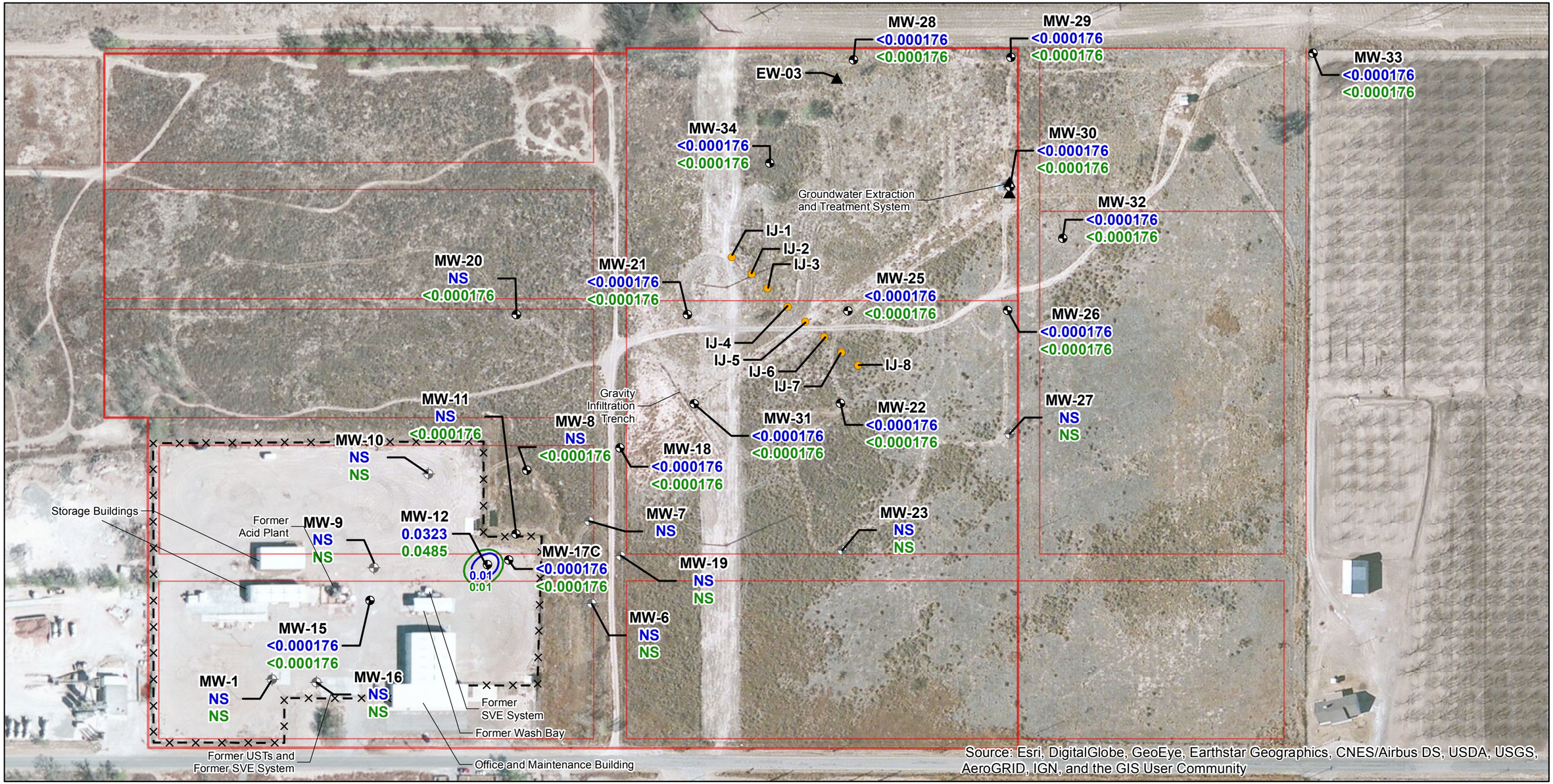
- Property Line
- Right of Way Boundary
- Fence
- Groundwater Extraction Well
- Injection Well
- Monitoring Well
- Monitoring Well Abandoned in November 2016
- 3340.00 Groundwater Elevation (ft amsl)
- NM Not Measured
- Groundwater Elevation Contour (dashed where inferred)
- Groundwater Flow Direction

Notes:
ft amsl = feet above mean sea level
SVE = soil vapor extraction
UST = underground storage tank

N

0 100 200
Feet

Figure 4
Potentiometric Surface Map - October 2016
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



LEGEND

- Property Line
- Right of Way Boundary
- Fence
- Groundwater Extraction Well
- Injection Well
- Monitoring Well
- Monitoring Well Abandoned in November 2016
- 0.01 mg/L NMWQCC Standard for Benzene Isopleth - April 2016
- 0.01 mg/L NMWQCC Standard for Benzene Isopleth - October 2016
- 0.01 — Benzene Concentration mg/L measured in April 2016
- NS — Not Sampled in April 2016
- 0.01 — Benzene Concentration mg/L measured in October 2016
- NS — Not Sampled in October 2016

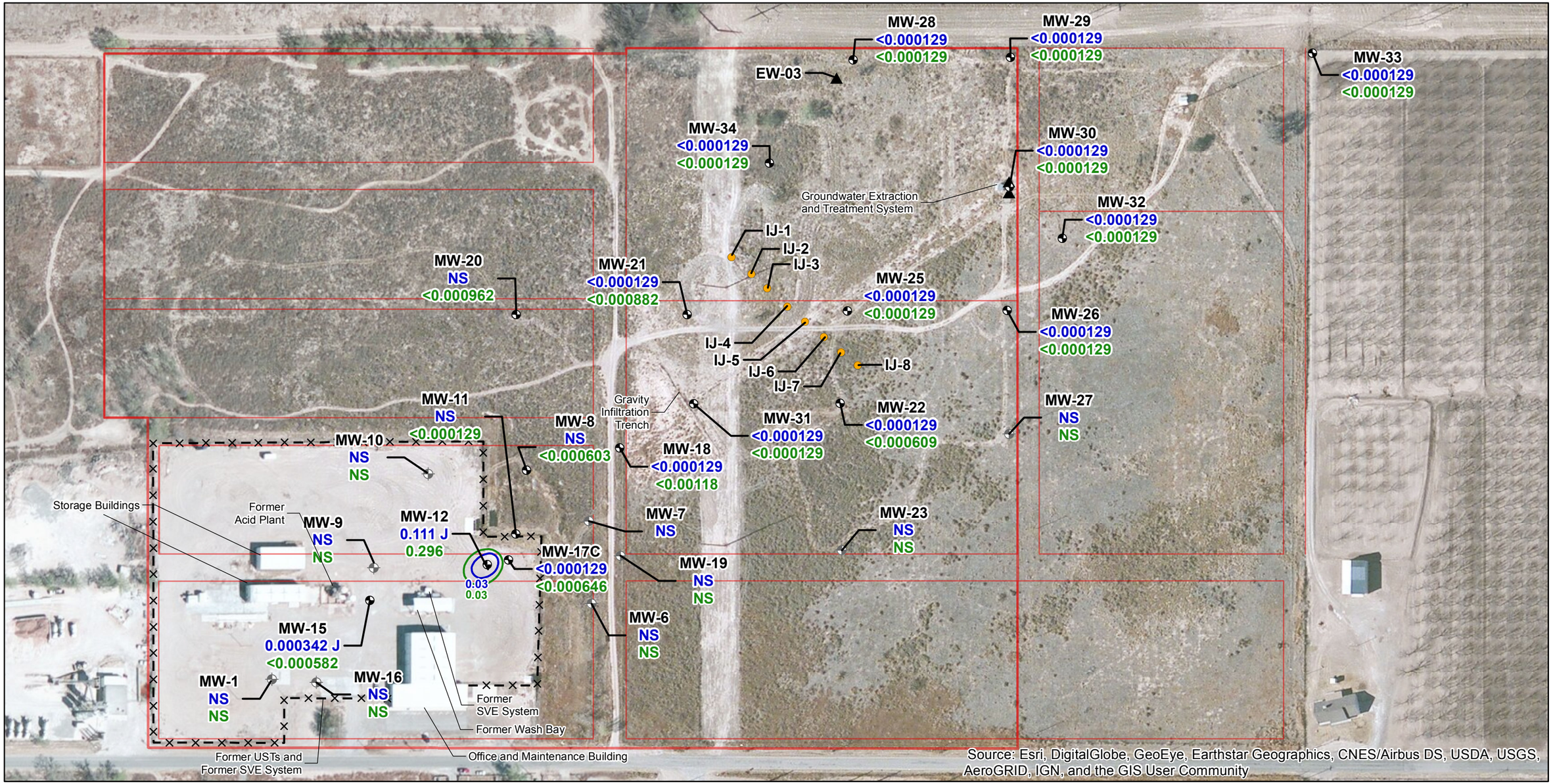
Notes:

<0.001 = analyte not detected at concentration above detection limit shown but below method detection limit
mg/L= milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
SVE = soil vapor extraction
UST = underground storage tank

N

0 100 200
Feet

Figure 5
Isopleth Map for Benzene - 2016
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



LEGEND

- Property Line
- Right of Way Boundary
- Fence
- Groundwater Extraction Well
- Injection Well
- Monitoring Well
- Monitoring Well Abandoned in November 2016
- 0.03 mg/L NMWQCC Standard for Naphthalene Isopleth - April 2016
- 0.03 mg/L NMWQCC Standard for Naphthalene Isopleth - October 2016
- 0.03 — Naphthalene Concentration mg/L measured in April 2016
- NS — Not Sampled in April 2016
- 0.03 — Naphthalene Concentration mg/L measured in October 2016
- NS — Not Sampled in October 2016

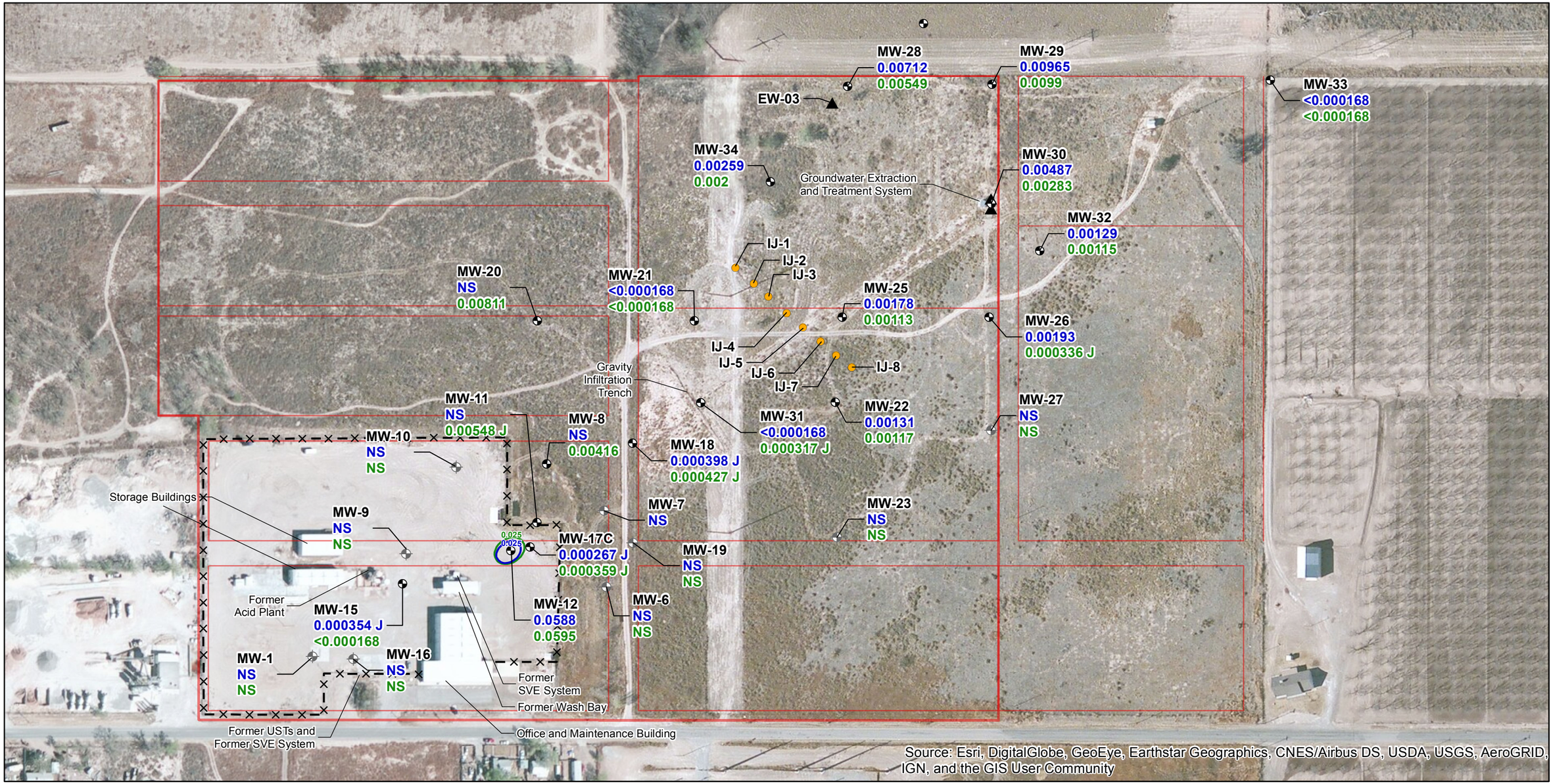
Notes:

<0.001 = analyte not detected at concentration above detection limit shown but below method detection limit
J = Analyte detected at concentration above instrument detection limit but below method detection limit
mg/L= milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
SVE = soil vapor extraction
UST = underground storage tank

N

0 100 200
Feet

Figure 6
Isopleth Map for Naphthalene - 2016
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



LEGEND

- Property Line
- Right of Way Boundary
- Fence
- Groundwater Extraction Well
- Injection Well
- Monitoring Well
- Monitoring Well Abandoned in November 2016
- 0.025 mg/L NMWQCC Standard for 1,1-DCA Isopleth - April 2016
- 0.025 mg/L NMWQCC Standard for 1,1-DCA Isopleth - October 2016
- **0.025** 1,1-DCA Concentration mg/L measured in April 2016
- **NS** Not Sampled in April 2016
- **0.025** 1,1-DCA Concentration mg/L measured in October 2016
- **NS** Not Sampled in October 2016

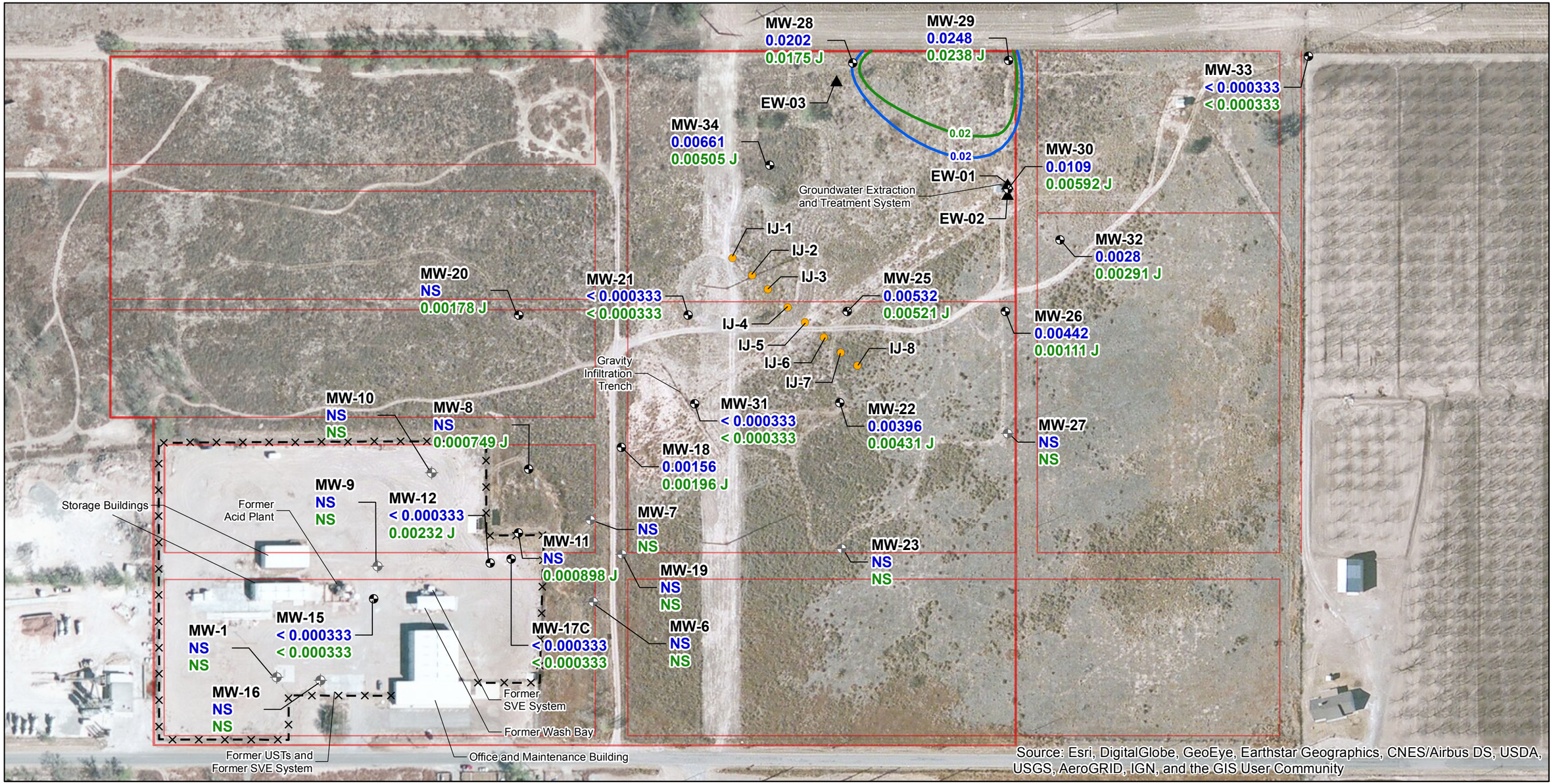
Notes:

<0.001 = analyte not detected at concentration above detection limit shown
DCA = dichloroethane
J = Analyte detected at concentration above instrument detection limit but below method detection limit
mg/L= milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
SVE = soil vapor extraction
UST = underground storage tank

N

0 100 200
Feet

Figure 7
Isopleth Map for 1,1-DCA - 2016
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



LEGEND

- Property Line
- Right of Way Boundary
- Fence
- Groundwater Extraction Well
- Injection Well
- Monitoring Well
- Monitoring Well Abandoned in November 2016
- 0.02 mg/L NMWQCC Standard for PCE Isopleth - April 2016
- 0.02 mg/L NMWQCC Standard for PCE Isopleth - October 2016
- 0.02 — PCE Concentration mg/L measured in April 2016
- NS — Not Sampled in April 2016
- 0.02 — PCE Concentration mg/L measured in October 2016
- NS — Not Sampled in October 2016

Notes:

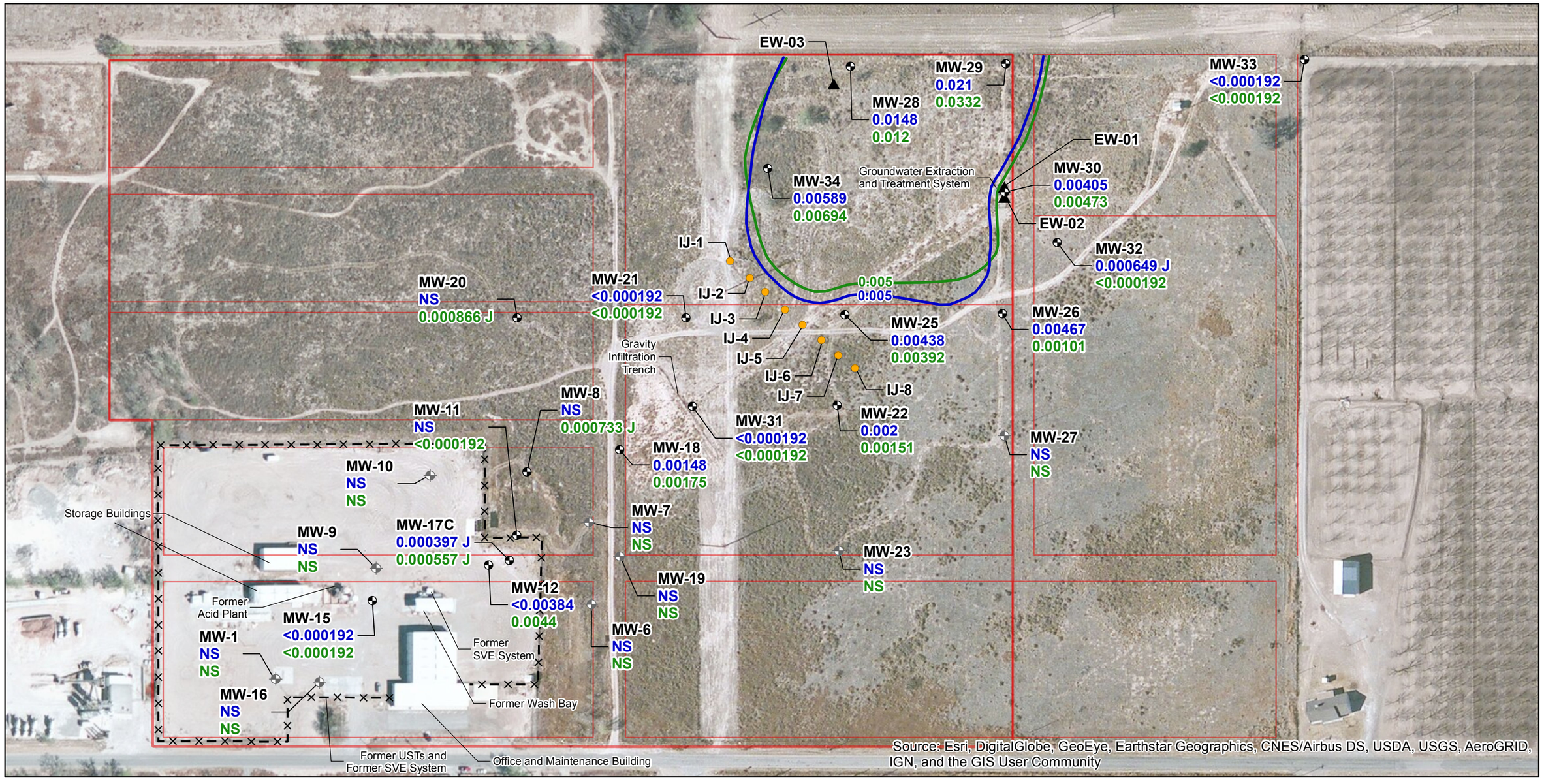
<0.001 = analyte not detected at concentration above detection limit shown
J = Analyte detected at concentration above instrument detection limit but below method detection limit
mg/L= milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
PCE = Tetrachloroethene
SVE = soil vapor extraction
UST = underground storage tank

N

0 100 200
Feet

Figure 8
Isopleth Map for PCE - 2016
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico

ch2m.



LEGEND

- Property Line
- Right of Way Boundary
- Fence
- Groundwater Extraction Well
- Injection Well
- Monitoring Well
- Monitoring Well Abandoned in November 2016
- 0.005 mg/L NMWQCC Standard for 1,1-DCE Isopleth - April 2016
- 0.005 mg/L NMWQCC Standard for 1,1-DCE Isopleth - October 2016
- 0.005 — 1,1-DCE Concentration mg/L measured in April 2016
- NS — Not Sampled in April 2016
- 0.005 — 1,1-DCE Concentration mg/L measured in October 2016
- NS — Not Sampled in October 2016

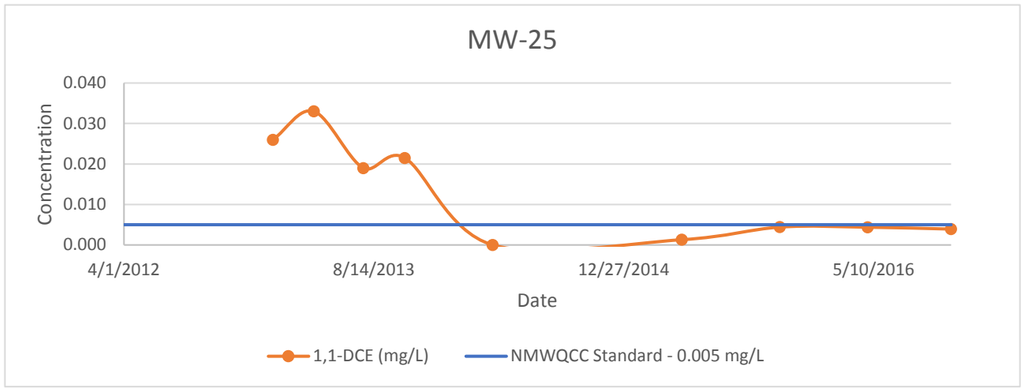
Notes:

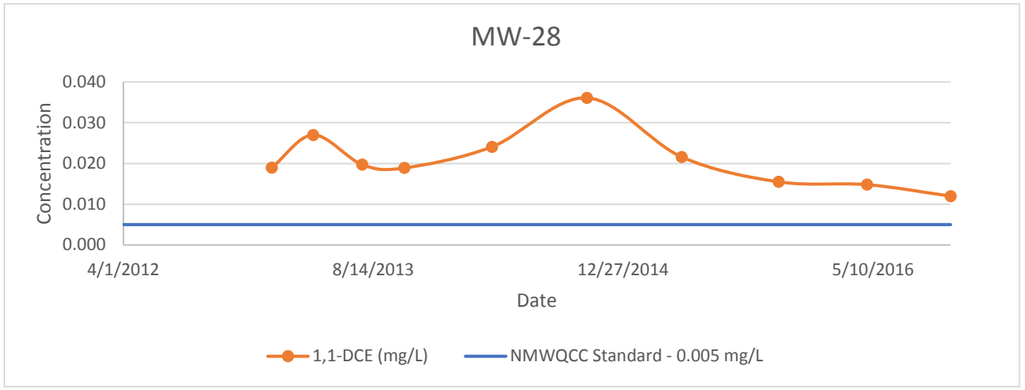
<0.001 = analyte not detected at concentration above detection limit shown
DCE = dichloroethene
J = Analyte detected at concentration above instrument detection limit but below method detection limit
mg/L = milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
SVE = soil vapor extraction
UST = underground storage tank

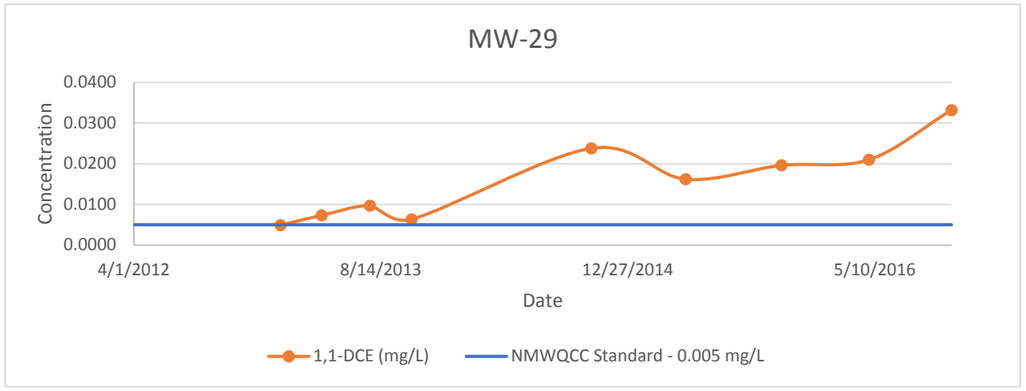
N

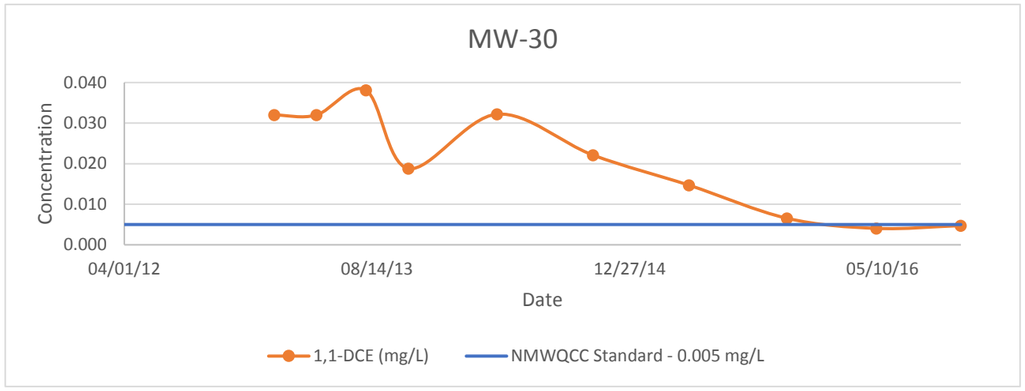
0 100 200
Feet

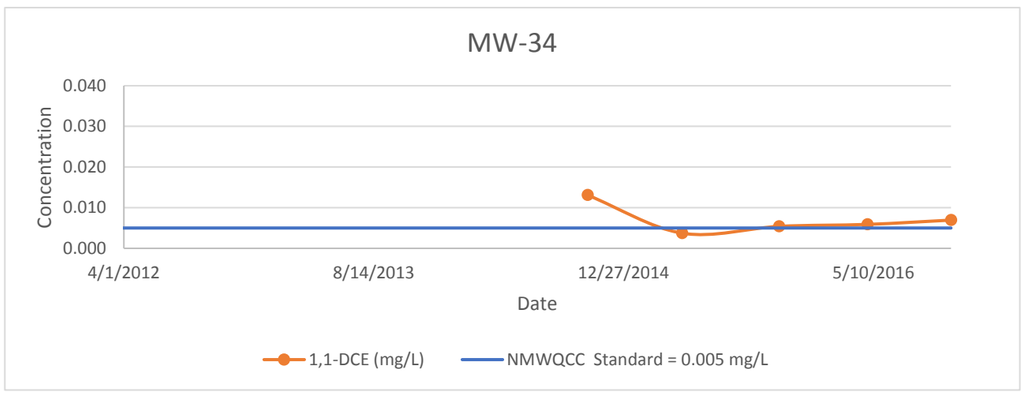
Figure 9
Isopleth Map for 1,1-DCE - 2016
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico











Notes:
1,1-DCE = 1,1-dichloroethene
mg/L = milligram(s) per liter
NMWQCC = New Mexico Water Quality Control Standard

The NMWQCC standard for 1,1-DCE in groundwater is 0.005 mg/L.

Figure 10
Concentration Trends for 1,1-DCE in the Downgradient Plume from 2013 to 2016
2016 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility, Artesia, New Mexico

Appendix A
NMOCD Correspondence

From: Billings, Bradford, EMNRD
To: Forsberg, Aleeca/ABQ
Subject: RE: Dowell Schlumberger Artesia, Sampling with HydraSleeves
Date: Monday, April 11, 2016 9:00:37 AM
Attachments: image001.png

Hi Aleeca,

I apologize for the delay. I had worked up a response a few weeks ago, but I guess I had neglected to send it along.

The following: You may use the Hydro-Sleeve for sampling as suggested with the following Conditions of Approval. Please note this approval covers the site in question and is not to be considered a blanket approval for any other/future sites.

1) No sleeves left in place. New sleeve each sample and then discarded/disposed.
2) Each well at each sampling should be assessed for total depth of well. This is to become aware of any potential silting-in of the well. It is necessary to know this beforehand and apply remedial methods for survivability of the well. DO not want to lose a data point. If well appears to be filling up from the bottom, an agitation and purge of sands/silts, etc. may be needed prior to next sampling.
3) In the process of each sampling at each well, the Hydro-sleeve bailer should be examined for detritus that may accumulate in the well. If any of note is found on the Hydro-sleeve, a disposable bailer should be used to assist in removal of any noted material/detritus/organic matter. This can be accomplished following the water sample collection proper.
4) If there were a dramatic increase or decrease in a given wells data stream for chemicals of concern, OCD may require a recheck of said sample for well(s) for verification of unusual data behavior. This can be negotiated when and if upsets in data occur. For both which well(s) and for what specific data need(s).

Thank you for the concise and discernable report/evaluation. If the above meets with you and your clients concerns, or if there are points that need additional action, please let OCD know.

From: Aleeca.Forsberg@CH2M.com [mailto:Aleeca.Forsberg@CH2M.com]
Sent: Friday, April 08, 2016 8:47 AM
To: Billings, Bradford, EMNRD
Subject: Dowell Schlumberger Artesia, Sampling with HydraSleeves

Good morning Brad,
We are preparing for our semi-annual groundwater sampling event at the Dowell Schlumberger site in Artesia, NM and would like to collect those samples using HydraSleeves, as recommended in the HydraSleeve Comparison Study, submitted to the NMOCD in February 2016. We expect to collect the groundwater samples during the last week of April.

Does the NMOCD concur with the recommendation to collect groundwater samples at the site using HydraSleeves?
I am happy to speak with you regarding the proposed sampling method when you have availability.

Aleeca
Hydrogeologist
D 505.855.5239
M 505.918.1800

3721 Rutledge Rd NE Suite B-1
Albuquerque, NM 87109

April 14, 2016

Virgilio Cocianni, Schlumberger

Cathy Barnett, CH2M

Re: Approvals and Conditions as Requested in the 2015 Annual Groundwater Monitoring Report for GW-114 in Artesia at 507 East Richey Avenue, for the Former Dowell Schlumberger Facility.

To all,

As per the requests outlined in the most recent monitor report "2015 Annual Groundwater Monitoring Report - Former Dowell Schlumberger Facility".

The request for groundwater sampling to include only analyses for 1,1-DCA, 1,1-DCE, benzene, PCE, Napthalene and dissolved Manganese is approved. With the caveat that OCD may require a more broad scope of analyses, akin to current requirements, at closure. All other aspects of the sampling (ie. depth to water, bottom of casing, etc.) are to be maintained as per routine.

The request for numerous wells to be plugged and abandoned as follows:

Monitor wells identified as MW-1, MW-6, MW-7, MW-9, MW-10, MW-16, MW-19, MW-23 and MW-27 are approved for plugging and abandonment as per applicable regulation and protocol. Please submit plugging and abandonment verification within next applicable report time frame. This procedure is up to your decision. If you wish, you may maintain them until closure activities. The OCD requires the other wells requested for plugging and abandonment be maintained at this time.

OCD requests that you proceed with arranging for completing and sampling the "temporary" monitor well to the north of property lines as discussed and outlined in previous discussion and in this current report. Depending on data stream, it remains possible that additional monitor well(s) may become necessary. It is also requested that full spectrum for groundwater analysis be conducted on this one time sampling for this well. Aligned with what has previously been utilized for wells MW-28 and MW-29.

Via Mr. Cocianni, in an associated letter to OCD with this current monitoring report the following:

Mr. Cocianni has requested a status update regarding a stated application for discharge Permit GW-114. OCD would like to entertain with Schlumberger and CH2M the possibility of creating a Stage II Abatement Plan for this site and remedial process. This would eliminate the need for routine updating of the discharge plan. There are other potential advantages as well, that OCD would like to discuss. If you would, please inform OCD/myself if this is something you might wish to talk about.

Please call/email with any questions or comments. Please keep this letter for your records as no paper submission will be made.

Sincerely,

Bradford Billings

Hydrologist-OCD-District II

Santa Fe Office

505-476-3482

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

Appendix B
NMOSE Well Abandonment Permits

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL

Tom Blaine, P.E.
State Engineer

DISTRICT II
1900 West Second St.
Roswell, New Mexico 88201
Phone: (575) 622-6521
Fax: (575) 623-8559

November 10, 2016

Schlumberger Artesia
c/o Ch2M .
3721 Rutledge Rd NE suite B-1
Roswell, New Mexico 87109

RE: *Well Plugging Plan of Operations* for nine nonpermitted monitoring wells, Schlumberger Technology, Eddy County, New Mexico

Greetings:

Enclosed is your copy of the Well Plugging Plan of Operations for the above described project.

Per your email, the wells were installed prior to 2005 and have annular seals based on historic project reports.

The proposed method of operations for the subject wells are found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted August 31, 2005 by the State Engineer subject to the following:

> ***Plugging operations shall also be conducted in accordance with NMED, NMOCD, or other State or Federal agencies having oversight for the above described project.***

Sincerely,

Catherine Goetz, P.G., C.P.G.
Engineer Specialist Supervisor
Water Resource Allocation Program
Enclosure
cc Santa Fe

WELL PLUGGING PLAN OF OPERATIONS

NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging.

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2016 NOV 10 P 12: 47

I. FILING FEE: There is no filing fee for this form.

II. GENERAL / WELL OWNERSHIP:

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: None

Name of well owner: Schlumberger Technology Corporation: ATTN Virgilio Cocianni

Mailing address: 105 Industrial Boulevard

City: Sugar Land State: Texas Zip code: 77478

Phone number: 281-285-4747 E-mail: cocianni-v@slb.com

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: National EWP

New Mexico Well Driller License No.: WD-1210 Expiration Date: 10/31/2017

IV. WELL INFORMATION:

Note: A copy of the existing Well Record for the well to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: See Attached deg, _____ min, _____ sec
Longitude: _____ deg, _____ min, _____ sec, NAD 83

2) Reason(s) for plugging well: Monitoring wells no longer required. Abandonments approved by New Mexico Oil Conservation Division - Environmental Bureau (see attachment containing monitoring well GPS locations)
9 Wells to be Abandoned - See attached information.

3) Was well used for any type of monitoring program or environmental assessment? Yes If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? No If yes, provide additional detail, including analytical results and/or laboratory report(s): _____

5) Static water level: _____ feet below land surface / feet above land surface (circle one)

6) Depth of the well: _____ feet

Trn. No

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2016 NOV 10 PM 12: 47

7) Inside diameter of innermost casing: _____inches.

8) Casing material: _____

9) The well was constructed with:

_____ an open-hole production interval, state the open interval: _____

_____ a well screen or perforated pipe, state the screened interval(s): _____

10) What annular interval surrounding the artesian casing of this well is cement-grouted? _____

11) Was the well built with surface casing? _____If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? _____ If yes, please describe: _____

_____

12) Has all pumping equipment and associated piping been removed from the well? _____If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

V. DESCRIPTION OF PLANNED WELL PLUGGING:

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal.

1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well: Wells shall be abandoned by grouting them closed using a cement-bentonite grout slurry consisting of 95% Portland cement and 5% sodium bentonite. Grout shall be emplaced in the PVC screen and casing using tremie pipe. The entire surface components (i.e., well pad, protective casing, PVC casing) of the wells shall be removed and the upper three feet of the well shall be filled with a Portland cement plug. The cement plug shall be finished flush with the ground surface.

2) Will well head be cut-off below land surface after plugging? Yes

VI. PLUGGING AND SEALING MATERIALS:

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant

1) For plugging intervals that employ cement grout, complete and attach Table A.

2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.

3) Theoretical volume of grout required to plug the well to land surface: _____

4) Type of Cement proposed: Portland cement

5) Proposed cement grout mix: 6.1 gallons of water per 94 pound sack of Portland cement.

6) Will the grout be: _____batch-mixed and delivered to the site

x mixed on site

Trn. No

7) Grout additives requested, and percent by dry weight relative to cement: 3% to 5% Bentonite

8) Additional notes and calculations: Attached is a table containing all monitoroing well construction information and GPS coordinates.

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2016 NOV 10 PM 12:47

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

Please see attached sheet

VIII. SIGNATURE:

I, Bryan Nydoske, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Signature of Applicant — Date: 10/26/16

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

X Approved subject to the attached conditions.

_____ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this 7th day of November, 2016

Tom Blaine P.E., New Mexico State Engineer

By: C. Goetz

For Andy Morley

District II Manager

Trn. No

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			
Bottom of proposed interval of grout placement (ft bgl)			
Theoretical volume of grout required per interval (gallons)			
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			
Mixed on-site or batch-mixed and delivered?			
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2016 NOV 10 PM 12:47

Trn. No

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2016 NOV 10 PM 12: 47

Trn. No

7) Grout additives requested, and percent by dry weight relative to cement: 3% to 5% Bentonite with .65 gallons of water per 1%

8) Additional notes and calculations: Attached is a table containing all monitoroing well construction information and GPS coordinates.

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

Please see attached sheet

VIII. SIGNATURE:

I, Bryan Nydoske, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Signature of Applicant

10/26/16
Date

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2016 NOV 10 PM 12:47

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

X Approved subject to the attached conditions.

_____ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this 10th day of _____, _____

Tom Blaine P.E., New Mexico State Engineer

By: _____

Trn. No

Goetz, Catherine, OSE

From: Aleeca.Forsberg@CH2M.com
Sent: Thursday, November 10, 2016 5:35 PM
To: Goetz, Catherine, OSE
Subject: RE: Schlumberger Artesia - Well Plugging Plan

Good evening Cat,

Per your request for additional information regarding the well construction for monitoring wells listed on the well plugging plan referenced in the subject line:

- The monitoring wells were installed prior to 2005.
- These wells were installed as part of the groundwater program at the Former Schlumberger Facility. Based on historic reports which include well installation details for other monitoring wells installed at the site, the bentonite and grout seals of similarly constructed monitoring wells at the site show the annular seal at each monitoring well was approximately 15 feet thick.
- Static water at the site is between 12 and 16 feet below ground surface.

Please feel free to contact me with any other questions you may have and thank you for your assistance in obtaining permit approval.

Aleeca Forsberg
Hydrogeologist
D 505.855.5239
M 505.918.1800

ch2m:
3721 Rutledge Rd NE Suite B-1
Albuquerque, NM 87109

From: Forsberg, Aleeca/ABQ
Sent: Wednesday, November 09, 2016 9:42 AM
To: 'Catherine.Goetz@state.nm.us' <Catherine.Goetz@state.nm.us>
Subject: Schlumberger Artesia - Well Plugging Plan

Good Morning Cat,
Attached is a well plugging plan of operations for nine wells at the former Dowell Schlumberger facility in Artesia, NM. An original hard copy of this plan of operations will arrive at your office via FedEx tomorrow, Thursday November 10, 2016. We would like to begin work on Monday, November 14, 2016.
Please feel free to contact me with questions.

Thank you,
Aleeca Forsberg

Hydrogeologist
D 505.855.5239
M 505.918.1800

ch2m:
3721 Rutledge Rd NE Suite B-1
Albuquerque, NM 87109

Goetz, Catherine, OSE

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Sent: Thursday, November 10, 2016 5:35 PM
To: Goetz, Catherine, OSE
Subject: RE: Schlumberger Artesia - Well Plugging Plan

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- Static water at the site is between 12 and 16 feet below ground surface.

Please feel free to contact me with any other questions you may have and thank you for your assistance in obtaining permit approval.

Aleeca Forsberg
Hydrogeologist
D 505.855.5239
M 505.918.1800

ch2m
3721 Rutledge Rd NE Suite B-1
Albuquerque, NM 87109

From: Forsberg, Aleeca/ABQ
Sent: Wednesday, November 09, 2016 9:42 AM
To: 'Catherine.Goetz@state.nm.us' <Catherine.Goetz@state.nm.us>
Subject: Schlumberger Artesia - Well Plugging Plan

Good Morning Cat,
Attached is a well plugging plan of operations for nine wells at the former Dowell Schlumberger facility in Artesia, NM. An original hard copy of this plan of operations will arrive at your office via FedEx tomorrow, Thursday November 10, 2016. We would like to begin work on Monday, November 14, 2016.
Please feel free to contact me with questions.

Thank you,
Aleeca Forsberg

Hydrogeologist
D 505.855.5239
M 505.918.1800

ch2m
3721 Rutledge Rd NE Suite B-1
Albuquerque, NM 87109

Appendix C
Laboratory Analytical Reports

ANALYTICAL REPORT

Job Number: 600-130213-1

Job Description: Dowell - Artesia Groundwater

For:
CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, NM 87109

Attention: Jeffrey Minchak



Approved for release.
Cathy L Upton
Project Manager I
12/16/2016 4:42 PM

Cathy L Upton, Project Manager I
6310 Rothway Street, Houston, TX, 77040
(713)690-4444
cathy.upton@testamericainc.com
12/16/2016
Revision: 2

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CASE NARRATIVE

Client: CH2M Hill, Inc.

Project: Dowell - Artesia Groundwater

Report Number: 600-130213-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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.

REVISION
The report was revised on 5/22/16 to update the units reported, replacing the final report generated on 5/19/16. The report was revised again on 12/16/16 to report PCE instead of TCE, replacing the final report generated on 5/22/16.

RECEIPT
Note: All samples that require thermal preservation are considered acceptable if the arrival temperature is within 2°C of the required temperature or method specified range. For samples with a specified temperature of 4°C, samples with a temperature ranging from just above freezing temperature of water to 6°C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

The samples were received on 05/02/2016; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.2º C and 8.2º C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples ARTESIA -TB01- 04282016 (600-130213-1), ARTESIA -MW15- 04282016 (600-130213-2), ARTESIA -MW12- 04282016 (600-130213-3), ARTESIA -MW17C- 04282016 (600-130213-4), ARTESIA -MW18- 04282016 (600-130213-5), ARTESIA -MD01- 04282016 (600-130213-6), ARTESIA -MW22- 04282016 (600-130213-7), ARTESIA -MW25- 04282016 (600-130213-8), ARTESIA -MW26- 04282016 (600-130213-9), ARTESIA -MW28- 04282016 (600-130213-10), ARTESIA -MW29- 04282016 (600-130213-11), ARTESIA -MW33- 04282016 (600-130213-12), ARTESIA -MW34- 04282016 (600-130213-13), ARTESIA -MW32- 04282016 (600-130213-14), ARTESIA -MW31- 04282016 (600-130213-15), ARTESIA -MW21- 04282016 (600-130213-16), ARTESIA -MW30- 04282016 (600-130213-17), ARTESIA -MD02- 04282016 (600-130213-20), ARTESIA -INLET- 04282016 (600-130213-21), ARTESIA -MIDDLE- 04282016 (600-130213-22) and ARTESIA -EFFLUENT- 04282016 (600-130213-23) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/03/2016 and 05/08/2016.

Naphthalene exceeded the RPD limit for LCSD 600-188079/5.

Refer to the QC report for details.

Sample ARTESIA -MW12- 04282016 (600-130213-3)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICPMS)
Samples ARTESIA -MW18- 04282016 (600-130213-5), ARTESIA -MD01- 04282016 (600-130213-6), ARTESIA -MW22- 04282016 (600-130213-7), ARTESIA -MW25- 04282016 (600-130213-8), ARTESIA -MW26- 04282016 (600-130213-9), ARTESIA -MW28- 04282016 (600-130213-10), ARTESIA -MW29- 04282016 (600-130213-11), ARTESIA -MW34- 04282016 (600-130213-13), ARTESIA -MW32- 04282016 (600-130213-14), ARTESIA -MW31- 04282016 (600-130213-15), ARTESIA -MW21- 04282016 (600-130213-16), ARTESIA -MW30- 04282016 (600-130213-17), ARTESIA -MD02- 04282016 (600-130213-20), ARTESIA -INLET- 04282016 (600-130213-21), ARTESIA -MIDDLE- 04282016 (600-130213-22) and ARTESIA -EFFLUENT- 04282016 (600-130213-23) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared and analyzed on 05/04/2016.

Manganese, Dissolved failed the recovery criteria low for the MS/MSD of sample ARTESIA -MW21- 04282016 (600-130213-16) in batch

560-127672. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-130213-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
6020	Metals (ICP/MS)	SW846	TAL CC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CC = TestAmerica Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-130213-1

Client Sample ID: ARTESIA -TB01- 04282016 — Lab Sample ID: 600-130213-1

No Detections.

Client Sample ID: ARTESIA -MW15- 04282016 — Lab Sample ID: 600-130213-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000354	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
Naphthalene	0.000342	J	0.00200	0.000129	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MW12- 04282016 — Lab Sample ID: 600-130213-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.0588		0.0200	0.00336	mg/L	20		8260B	Total/NA
Benzene	0.0323		0.0200	0.00352	mg/L	20		8260B	Total/NA
Naphthalene	0.111		0.0400	0.00258	mg/L	20		8260B	Total/NA

Client Sample ID: ARTESIA -MW17C- 04282016 — Lab Sample ID: 600-130213-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000267	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000397	J	0.00100	0.000192	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MW18- 04282016 — Lab Sample ID: 600-130213-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000398	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00148		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00156		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MD01- 04282016 — Lab Sample ID: 600-130213-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000552	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00175		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00184		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MW22- 04282016 — Lab Sample ID: 600-130213-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00131		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00200		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00396		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0145	J	0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA -MW25- 04282016 — Lab Sample ID: 600-130213-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00178		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00438		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00532		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MW26- 04282016 — Lab Sample ID: 600-130213-9

This Detection Summary does not include radiochemical test results.

Client Sample ID: ARTESIA -MW26- 04282016 (Continued) — Lab Sample ID: 600-130213-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00193		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00467		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00442		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MW28- 04282016 — Lab Sample ID: 600-130213-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00712		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0148		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0202		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MW29- 04282016 — Lab Sample ID: 600-130213-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00965		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0210		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0248		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MW33- 04282016 — Lab Sample ID: 600-130213-12

No Detections.

Client Sample ID: ARTESIA -MW34- 04282016 — Lab Sample ID: 600-130213-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00259		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00589		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00661		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MW32- 04282016 — Lab Sample ID: 600-130213-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00129		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000649	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00280		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MW31- 04282016 — Lab Sample ID: 600-130213-15

No Detections.

Client Sample ID: ARTESIA -MW21- 04282016 — Lab Sample ID: 600-130213-16

No Detections.

Client Sample ID: ARTESIA -MW30- 04282016 — Lab Sample ID: 600-130213-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00487		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00405		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0109		0.00100	0.000333	mg/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-130213-1

Client Sample ID: ARTESIA -MD02- 04282016 — Lab Sample ID: 600-130213-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00499		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00444		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0123		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -INLET- 04282016 — Lab Sample ID: 600-130213-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00615		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0163		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0213		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -MIDDLE- 04282016 — Lab Sample ID: 600-130213-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00515		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00180		0.00100	0.000192	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA -EFFLUENT- 04282016 — Lab Sample ID: 600-130213-23

No Detections.

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-130213-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-130213-1	ARTESIA -TB01- 04282016	Water	04/28/16 07:00	05/02/16 10:12
600-130213-2	ARTESIA -MW15- 04282016	Water	04/28/16 08:10	05/02/16 10:12
600-130213-3	ARTESIA -MW12- 04282016	Water	04/28/16 08:20	05/02/16 10:12
600-130213-4	ARTESIA -MW17C- 04282016	Water	04/28/16 08:45	05/02/16 10:12
600-130213-5	ARTESIA -MW18- 04282016	Water	04/28/16 09:15	05/02/16 10:12
600-130213-6	ARTESIA -MD01- 04282016	Water	04/28/16 09:20	05/02/16 10:12
600-130213-7	ARTESIA -MW22- 04282016	Water	04/28/16 10:10	05/02/16 10:12
600-130213-8	ARTESIA -MW25- 04282016	Water	04/28/16 10:25	05/02/16 10:12
600-130213-9	ARTESIA -MW26- 04282016	Water	04/28/16 11:00	05/02/16 10:12
600-130213-10	ARTESIA -MW28- 04282016	Water	04/28/16 11:20	05/02/16 10:12
600-130213-11	ARTESIA -MW29- 04282016	Water	04/28/16 11:45	05/02/16 10:12
600-130213-12	ARTESIA -MW33- 04282016	Water	04/28/16 12:00	05/02/16 10:12
600-130213-13	ARTESIA -MW34- 04282016	Water	04/28/16 12:30	05/02/16 10:12
600-130213-14	ARTESIA -MW32- 04282016	Water	04/28/16 13:20	05/02/16 10:12
600-130213-15	ARTESIA -MW31- 04282016	Water	04/28/16 13:40	05/02/16 10:12
600-130213-16	ARTESIA -MW21- 04282016	Water	04/28/16 14:10	05/02/16 10:12
600-130213-17	ARTESIA -MW30- 04282016	Water	04/28/16 14:50	05/02/16 10:12
600-130213-20	ARTESIA -MD02- 04282016	Water	04/28/16 15:00	05/02/16 10:12
600-130213-21	ARTESIA -INLET- 04282016	Water	04/28/16 15:15	05/02/16 10:12
600-130213-22	ARTESIA -MIDDLE- 04282016	Water	04/28/16 15:20	05/02/16 10:12
600-130213-23	ARTESIA -EFFLUENT- 04282016	Water	04/28/16 15:25	05/02/16 10:12

Client Sample ID: ARTESIA -TB01- 04282016

Lab Sample ID: 600-130213-1

Date Collected: 04/28/16 07:00
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/08/16 13:37	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/08/16 13:37	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/08/16 13:37	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/08/16 13:37	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/08/16 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*50 - 134*		*05/08/16 13:37*	*1*
4-Bromofluorobenzene	*121*		*67 - 139*		*05/08/16 13:37*	*1*
Dibromofluoromethane	*79*		*62 - 130*		*05/08/16 13:37*	*1*
Toluene-d8 (Surr)	*84*		*70 - 130*		*05/08/16 13:37*	*1*

Client Sample ID: ARTESIA -MW15- 04282016

Lab Sample ID: 600-130213-2

Date Collected: 04/28/16 08:10
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.000354**	**J**	0.00100	0.000168	mg/L			05/08/16 16:59	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/08/16 16:59	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/08/16 16:59	1
Naphthalene	**0.000342**	**J**	0.00200	0.000129	mg/L			05/08/16 16:59	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/08/16 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*50 - 134*		*05/08/16 16:59*	*1*
4-Bromofluorobenzene	*121*		*67 - 139*		*05/08/16 16:59*	*1*
Dibromofluoromethane	*80*		*62 - 130*		*05/08/16 16:59*	*1*
Toluene-d8 (Surr)	*84*		*70 - 130*		*05/08/16 16:59*	*1*

Client Sample ID: ARTESIA -MW12- 04282016

Lab Sample ID: 600-130213-3

Date Collected: 04/28/16 08:20
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.0588**		0.0200	0.00336	mg/L			05/08/16 20:47	20
1,1-Dichloroethene	0.00384	U	0.0200	0.00384	mg/L			05/08/16 20:47	20
Benzene	**0.0323**		0.0200	0.00352	mg/L			05/08/16 20:47	20
Naphthalene	**0.111**		0.0400	0.00258	mg/L			05/08/16 20:47	20
Tetrachloroethene	0.00666	U	0.0200	0.00666	mg/L			05/08/16 20:47	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*50 - 134*		*05/08/16 20:47*	*20*
4-Bromofluorobenzene	*118*		*67 - 139*		*05/08/16 20:47*	*20*
Dibromofluoromethane	*83*		*62 - 130*		*05/08/16 20:47*	*20*
Toluene-d8 (Surr)	*82*		*70 - 130*		*05/08/16 20:47*	*20*

Client Sample ID: ARTESIA -MW17C- 04282016

Lab Sample ID: 600-130213-4

Date Collected: 04/28/16 08:45
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000267	J	0.00100	0.000168	mg/L			05/08/16 17:24	1
1,1-Dichloroethene	0.000397	J	0.00100	0.000192	mg/L			05/08/16 17:24	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/08/16 17:24	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/08/16 17:24	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/08/16 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*50 - 134*		*05/08/16 17:24*	*1*
4-Bromofluorobenzene	*121*		*67 - 139*		*05/08/16 17:24*	*1*
Dibromofluoromethane	*81*		*62 - 130*		*05/08/16 17:24*	*1*
Toluene-d8 (Surr)	*84*		*70 - 130*		*05/08/16 17:24*	*1*

Client Sample ID: ARTESIA -MW18- 04282016

Lab Sample ID: 600-130213-5

Date Collected: 04/28/16 09:15
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000398	J	0.00100	0.000168	mg/L			05/08/16 17:50	1
1,1-Dichloroethene	0.00148		0.00100	0.000192	mg/L			05/08/16 17:50	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/08/16 17:50	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/08/16 17:50	1
Tetrachloroethene	0.00156		0.00100	0.000333	mg/L			05/08/16 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*50 - 134*		*05/08/16 17:50*	*1*
4-Bromofluorobenzene	*120*		*67 - 139*		*05/08/16 17:50*	*1*
Dibromofluoromethane	*81*		*62 - 130*		*05/08/16 17:50*	*1*
Toluene-d8 (Surr)	*83*		*70 - 130*		*05/08/16 17:50*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 18:21	1

Client Sample ID: ARTESIA -MD01- 04282016

Lab Sample ID: 600-130213-6

Date Collected: 04/28/16 09:20
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000552	J	0.00100	0.000168	mg/L			05/03/16 14:16	1
1,1-Dichloroethene	0.00175		0.00100	0.000192	mg/L			05/03/16 14:16	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 14:16	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 14:16	1
Tetrachloroethene	0.00184		0.00100	0.000333	mg/L			05/03/16 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*50 - 134*		*05/03/16 14:16*	*1*
4-Bromofluorobenzene	*97*		*67 - 139*		*05/03/16 14:16*	*1*
Dibromofluoromethane	*102*		*62 - 130*		*05/03/16 14:16*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*05/03/16 14:16*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 18:27	1

Client Sample ID: ARTESIA -MW22- 04282016 — Lab Sample ID: 600-130213-7

Date Collected: 04/28/16 10:10 — **Matrix: Water**
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00131**		0.00100	0.000168	mg/L			05/03/16 14:40	1
1,1-Dichloroethene	**0.00200**		0.00100	0.000192	mg/L			05/03/16 14:40	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 14:40	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 14:40	1
Tetrachloroethene	**0.00396**		0.00100	0.000333	mg/L			05/03/16 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*50 - 134*		*05/03/16 14:40*	*1*
4-Bromofluorobenzene	*95*		*67 - 139*		*05/03/16 14:40*	*1*
Dibromofluoromethane	*102*		*62 - 130*		*05/03/16 14:40*	*1*
Toluene-d8 (Surr)	*86*		*70 - 130*		*05/03/16 14:40*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.0145**	**J**	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 18:58	1

Client Sample ID: ARTESIA -MW25- 04282016 — Lab Sample ID: 600-130213-8

Date Collected: 04/28/16 10:25 — **Matrix: Water**
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00178**		0.00100	0.000168	mg/L			05/03/16 15:05	1
1,1-Dichloroethene	**0.00438**		0.00100	0.000192	mg/L			05/03/16 15:05	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 15:05	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 15:05	1
Tetrachloroethene	**0.00532**		0.00100	0.000333	mg/L			05/03/16 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*50 - 134*		*05/03/16 15:05*	*1*
4-Bromofluorobenzene	*90*		*67 - 139*		*05/03/16 15:05*	*1*
Dibromofluoromethane	*103*		*62 - 130*		*05/03/16 15:05*	*1*
Toluene-d8 (Surr)	*88*		*70 - 130*		*05/03/16 15:05*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 19:04	1

Client Sample ID: ARTESIA -MW26- 04282016 — Lab Sample ID: 600-130213-9

Date Collected: 04/28/16 11:00 — **Matrix: Water**
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00193**		0.00100	0.000168	mg/L			05/03/16 15:52	1
1,1-Dichloroethene	**0.00467**		0.00100	0.000192	mg/L			05/03/16 15:52	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 15:52	1

Client Sample ID: ARTESIA -MW26- 04282016

Lab Sample ID: 600-130213-9

Date Collected: 04/28/16 11:00
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 15:52	1
Tetrachloroethene	**0.00442**		0.00100	0.000333	mg/L			05/03/16 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*50 - 134*		*05/03/16 15:52*	*1*
4-Bromofluorobenzene	*103*		*67 - 139*		*05/03/16 15:52*	*1*
Dibromofluoromethane	*104*		*62 - 130*		*05/03/16 15:52*	*1*
Toluene-d8 (Surr)	*87*		*70 - 130*		*05/03/16 15:52*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 19:10	1

Client Sample ID: ARTESIA -MW28- 04282016

Lab Sample ID: 600-130213-10

Date Collected: 04/28/16 11:20
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00712**		0.00100	0.000168	mg/L			05/03/16 16:16	1
1,1-Dichloroethene	**0.0148**		0.00100	0.000192	mg/L			05/03/16 16:16	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 16:16	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 16:16	1
Tetrachloroethene	**0.0202**		0.00100	0.000333	mg/L			05/03/16 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*50 - 134*		*05/03/16 16:16*	*1*
4-Bromofluorobenzene	*93*		*67 - 139*		*05/03/16 16:16*	*1*
Dibromofluoromethane	*104*		*62 - 130*		*05/03/16 16:16*	*1*
Toluene-d8 (Surr)	*87*		*70 - 130*		*05/03/16 16:16*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 19:15	1

Client Sample ID: ARTESIA -MW29- 04282016

Lab Sample ID: 600-130213-11

Date Collected: 04/28/16 11:45
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00965**		0.00100	0.000168	mg/L			05/03/16 16:40	1
1,1-Dichloroethene	**0.0210**		0.00100	0.000192	mg/L			05/03/16 16:40	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 16:40	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 16:40	1
Tetrachloroethene	**0.0248**		0.00100	0.000333	mg/L			05/03/16 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*50 - 134*		*05/03/16 16:40*	*1*
4-Bromofluorobenzene	*103*		*67 - 139*		*05/03/16 16:40*	*1*
Dibromofluoromethane	*108*		*62 - 130*		*05/03/16 16:40*	*1*

Client Sample ID: ARTESIA -MW29- 04282016

Lab Sample ID: 600-130213-11

Date Collected: 04/28/16 11:45
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*87*		*70 - 130*		*05/03/16 16:40*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 19:21	1

Client Sample ID: ARTESIA -MW33- 04282016

Lab Sample ID: 600-130213-12

Date Collected: 04/28/16 12:00
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/03/16 17:04	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/03/16 17:04	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 17:04	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 17:04	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/03/16 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*50 - 134*		*05/03/16 17:04*	*1*
4-Bromofluorobenzene	*84*		*67 - 139*		*05/03/16 17:04*	*1*
Dibromofluoromethane	*108*		*62 - 130*		*05/03/16 17:04*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*05/03/16 17:04*	*1*

Client Sample ID: ARTESIA -MW34- 04282016

Lab Sample ID: 600-130213-13

Date Collected: 04/28/16 12:30
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00259**		0.00100	0.000168	mg/L			05/03/16 17:28	1
1,1-Dichloroethene	**0.00589**		0.00100	0.000192	mg/L			05/03/16 17:28	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 17:28	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 17:28	1
Tetrachloroethene	**0.00661**		0.00100	0.000333	mg/L			05/03/16 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*50 - 134*		*05/03/16 17:28*	*1*
4-Bromofluorobenzene	*96*		*67 - 139*		*05/03/16 17:28*	*1*
Dibromofluoromethane	*109*		*62 - 130*		*05/03/16 17:28*	*1*
Toluene-d8 (Surr)	*86*		*70 - 130*		*05/03/16 17:28*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 19:27	1

Client Sample ID: ARTESIA -MW32- 04282016

Lab Sample ID: 600-130213-14

Date Collected: 04/28/16 13:20

Matrix: Water

Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00129**		0.00100	0.000168	mg/L			05/03/16 17:51	1
1,1-Dichloroethene	**0.000649**	**J**	0.00100	0.000192	mg/L			05/03/16 17:51	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 17:51	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 17:51	1
Tetrachloroethene	**0.00280**		0.00100	0.000333	mg/L			05/03/16 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*50 - 134*		*05/03/16 17:51*	*1*
4-Bromofluorobenzene	*91*		*67 - 139*		*05/03/16 17:51*	*1*
Dibromofluoromethane	*108*		*62 - 130*		*05/03/16 17:51*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*05/03/16 17:51*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 19:33	1

Client Sample ID: ARTESIA -MW31- 04282016

Lab Sample ID: 600-130213-15

Date Collected: 04/28/16 13:40

Matrix: Water

Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/03/16 18:15	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/03/16 18:15	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 18:15	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 18:15	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/03/16 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*50 - 134*		*05/03/16 18:15*	*1*
4-Bromofluorobenzene	*103*		*67 - 139*		*05/03/16 18:15*	*1*
Dibromofluoromethane	*111*		*62 - 130*		*05/03/16 18:15*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*05/03/16 18:15*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 19:39	1

Client Sample ID: ARTESIA -MW21- 04282016

Lab Sample ID: 600-130213-16

Date Collected: 04/28/16 14:10

Matrix: Water

Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/03/16 15:29	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/03/16 15:29	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 15:29	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 15:29	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/03/16 15:29	1

Client Sample ID: ARTESIA -MW21- 04282016 — Lab Sample ID: 600-130213-16

Date Collected: 04/28/16 14:10 — **Matrix: Water**
Date Received: 05/02/16 10:12

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*50 - 134*		*05/03/16 15:29*	*1*
4-Bromofluorobenzene	*89*		*67 - 139*		*05/03/16 15:29*	*1*
Dibromofluoromethane	*104*		*62 - 130*		*05/03/16 15:29*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*05/03/16 15:29*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U F1	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 17:58	1

Client Sample ID: ARTESIA -MW30- 04282016 — Lab Sample ID: 600-130213-17

Date Collected: 04/28/16 14:50 — **Matrix: Water**
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00487**		0.00100	0.000168	mg/L			05/03/16 18:39	1
1,1-Dichloroethene	**0.00405**		0.00100	0.000192	mg/L			05/03/16 18:39	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 18:39	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 18:39	1
Tetrachloroethene	**0.0109**		0.00100	0.000333	mg/L			05/03/16 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*50 - 134*		*05/03/16 18:39*	*1*
4-Bromofluorobenzene	*94*		*67 - 139*		*05/03/16 18:39*	*1*
Dibromofluoromethane	*111*		*62 - 130*		*05/03/16 18:39*	*1*
Toluene-d8 (Surr)	*84*		*70 - 130*		*05/03/16 18:39*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 19:44	1

Client Sample ID: ARTESIA -MD02- 04282016 — Lab Sample ID: 600-130213-20

Date Collected: 04/28/16 15:00 — **Matrix: Water**
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00499**		0.00100	0.000168	mg/L			05/03/16 19:03	1
1,1-Dichloroethene	**0.00444**		0.00100	0.000192	mg/L			05/03/16 19:03	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 19:03	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 19:03	1
Tetrachloroethene	**0.0123**		0.00100	0.000333	mg/L			05/03/16 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*50 - 134*		*05/03/16 19:03*	*1*
4-Bromofluorobenzene	*90*		*67 - 139*		*05/03/16 19:03*	*1*
Dibromofluoromethane	*108*		*62 - 130*		*05/03/16 19:03*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*05/03/16 19:03*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 19:50	1

Client Sample ID: ARTESIA -INLET- 04282016

Lab Sample ID: 600-130213-21

Date Collected: 04/28/16 15:15
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00615**		0.00100	0.000168	mg/L			05/03/16 19:26	1
1,1-Dichloroethene	**0.0163**		0.00100	0.000192	mg/L			05/03/16 19:26	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 19:26	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 19:26	1
Tetrachloroethene	**0.0213**		0.00100	0.000333	mg/L			05/03/16 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*50 - 134*		*05/03/16 19:26*	*1*
4-Bromofluorobenzene	*91*		*67 - 139*		*05/03/16 19:26*	*1*
Dibromofluoromethane	*112*		*62 - 130*		*05/03/16 19:26*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*05/03/16 19:26*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 20:21	1

Client Sample ID: ARTESIA -MIDDLE- 04282016

Lab Sample ID: 600-130213-22

Date Collected: 04/28/16 15:20
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00515**		0.00100	0.000168	mg/L			05/08/16 18:15	1
1,1-Dichloroethene	**0.00180**		0.00100	0.000192	mg/L			05/08/16 18:15	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/08/16 18:15	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/08/16 18:15	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/08/16 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*50 - 134*		*05/08/16 18:15*	*1*
4-Bromofluorobenzene	*122*		*67 - 139*		*05/08/16 18:15*	*1*
Dibromofluoromethane	*83*		*62 - 130*		*05/08/16 18:15*	*1*
Toluene-d8 (Surr)	*85*		*70 - 130*		*05/08/16 18:15*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 20:27	1

Client Sample ID: ARTESIA -EFFLUENT- 04282016

Lab Sample ID: 600-130213-23

Date Collected: 04/28/16 15:25
Matrix: Water
Date Received: 05/02/16 10:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/08/16 18:40	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/08/16 18:40	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/08/16 18:40	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/08/16 18:40	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/08/16 18:40	1

Client Sample ID: ARTESIA -EFFLUENT- 04282016

Lab Sample ID: 600-130213-23

Date Collected: 04/28/16 15:25

Matrix: Water

Date Received: 05/02/16 10:12

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*50 - 134*		*05/08/16 18:40*	*1*
4-Bromofluorobenzene	*119*		*67 - 139*		*05/08/16 18:40*	*1*
Dibromofluoromethane	*81*		*62 - 130*		*05/08/16 18:40*	*1*
Toluene-d8 (Surr)	*83*		*70 - 130*		*05/08/16 18:40*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 20:33	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate 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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
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)

Surrogate Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-130213-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-130213-1	ARTESIA -TB01- 04282016	94	121	79	84
600-130213-2	ARTESIA -MW15- 04282016	93	121	80	84
600-130213-3	ARTESIA -MW12- 04282016	101	118	83	82
600-130213-4	ARTESIA -MW17C- 04282016	96	121	81	84
600-130213-5	ARTESIA -MW18- 04282016	97	120	81	83
600-130213-6	ARTESIA -MD01- 04282016	106	97	102	90
600-130213-7	ARTESIA -MW22- 04282016	112	95	102	86
600-130213-8	ARTESIA -MW25- 04282016	110	90	103	88
600-130213-9	ARTESIA -MW26- 04282016	110	103	104	87
600-130213-10	ARTESIA -MW28- 04282016	111	93	104	87
600-130213-11	ARTESIA -MW29- 04282016	115	103	108	87
600-130213-12	ARTESIA -MW33- 04282016	111	84	108	91
600-130213-13	ARTESIA -MW34- 04282016	118	96	109	86
600-130213-14	ARTESIA -MW32- 04282016	112	91	108	90
600-130213-15	ARTESIA -MW31- 04282016	118	103	111	89
600-130213-16	ARTESIA -MW21- 04282016	103	89	104	92
600-130213-16 MS	ARTESIA -MW21- 04282016	105	91	109	85
600-130213-16 MSD	ARTESIA -MW21- 04282016	104	89	111	85
600-130213-17	ARTESIA -MW30- 04282016	116	94	111	84
600-130213-20	ARTESIA -MD02- 04282016	120	90	108	90
600-130213-21	ARTESIA -INLET- 04282016	109	91	112	91
600-130213-22	ARTESIA -MIDDLE- 04282016	99	122	83	85
600-130213-23	ARTESIA -EFFLUENT- 042820	99	119	81	83
LCS 600-187679/4	Lab Control Sample	111	99	98	79
LCSD 600-187679/5	Lab Control Sample Dup	112	93	93	72
MB 600-187679/9	Method Blank	108	93	102	85
MB 600-188079/9	Method Blank	97	123	81	84

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-187679/9
Matrix: Water
Analysis Batch: 187679

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	0.000168	U	0.00100	0.000168	mg/L			05/03/16 13:52	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/03/16 13:52	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/03/16 13:52	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/03/16 13:52	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/03/16 13:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*50 - 134*		*05/03/16 13:52*	*1*
4-Bromofluorobenzene	*93*		*67 - 139*		*05/03/16 13:52*	*1*
Dibromofluoromethane	*102*		*62 - 130*		*05/03/16 13:52*	*1*
Toluene-d8 (Surr)	*85*		*70 - 130*		*05/03/16 13:52*	*1*

Lab Sample ID: LCS 600-187679/4
Matrix: Water
Analysis Batch: 187679

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			0.0100	0.01032		mg/L		103	70 - 140		
1,1-Dichloroethene			0.0100	0.008783		mg/L		88	58 - 148		
Benzene			0.0100	0.007838		mg/L		78	70 - 130		
Naphthalene			0.0100	0.007855		mg/L		79	10 - 150		
Tetrachloroethene			0.0100	0.01061		mg/L		106	47 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*111*		*50 - 134*
4-Bromofluorobenzene	*99*		*67 - 139*
Dibromofluoromethane	*98*		*62 - 130*
Toluene-d8 (Surr)	*79*		*70 - 130*

Lab Sample ID: LCSD 600-187679/5
Matrix: Water
Analysis Batch: 187679

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			0.0100	0.009479		mg/L		95	70 - 140	9	20
1,1-Dichloroethene			0.0100	0.008360		mg/L		84	58 - 148	5	20
Benzene			0.0100	0.007205		mg/L		72	70 - 130	8	20
Naphthalene			0.0100	0.008263		mg/L		83	10 - 150	5	20
Tetrachloroethene			0.0100	0.009088		mg/L		91	47 - 150	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*112*		*50 - 134*
4-Bromofluorobenzene	*93*		*67 - 139*
Dibromofluoromethane	*93*		*62 - 130*
Toluene-d8 (Surr)	*72*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-130213-16 MS
Matrix: Water
Analysis Batch: 187679

Client Sample ID: ARTESIA -MW21- 04282016
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.000168	U	0.0100	0.01058		mg/L		106	70 - 140
1,1-Dichloroethene	0.000192	U	0.0100	0.007814		mg/L		78	58 - 148
Benzene	0.000176	U	0.0100	0.007892		mg/L		79	70 - 130
Naphthalene	0.000129	U	0.0100	0.005579		mg/L		56	10 - 150
Tetrachloroethene	0.000333	U	0.0100	0.009823		mg/L		98	47 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*50 - 134*
4-Bromofluorobenzene	*91*		*67 - 139*
Dibromofluoromethane	*109*		*62 - 130*
Toluene-d8 (Surr)	*85*		*70 - 130*

Lab Sample ID: 600-130213-16 MSD
Matrix: Water
Analysis Batch: 187679

Client Sample ID: ARTESIA -MW21- 04282016
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-Dichloroethane	0.000168	U	0.0100	0.01103		mg/L		110	70 - 140	4	30
1,1-Dichloroethene	0.000192	U	0.0100	0.007972		mg/L		80	58 - 148	2	30
Benzene	0.000176	U	0.0100	0.008195		mg/L		82	70 - 130	4	30
Naphthalene	0.000129	U	0.0100	0.007195		mg/L		72	10 - 150	25	30
Tetrachloroethene	0.000333	U	0.0100	0.01072		mg/L		107	47 - 150	9	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*50 - 134*
4-Bromofluorobenzene	*89*		*67 - 139*
Dibromofluoromethane	*111*		*62 - 130*
Toluene-d8 (Surr)	*85*		*70 - 130*

Lab Sample ID: MB 600-188079/9
Matrix: Water
Analysis Batch: 188079

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	0.000168	U	0.00100	0.000168	mg/L			05/08/16 13:11	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/08/16 13:11	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/08/16 13:11	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/08/16 13:11	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/08/16 13:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*50 - 134*		*05/08/16 13:11*	*1*
4-Bromofluorobenzene	*123*		*67 - 139*		*05/08/16 13:11*	*1*
Dibromofluoromethane	*81*		*62 - 130*		*05/08/16 13:11*	*1*
Toluene-d8 (Surr)	*84*		*70 - 130*		*05/08/16 13:11*	*1*

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 560-127668/1-A
Matrix: Water
Analysis Batch: 127672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127668

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		05/04/16 13:30	05/04/16 17:42	1

Lab Sample ID: LCS 560-127668/2-A
Matrix: Water
Analysis Batch: 127672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127668

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	5.00	4.460		mg/L		89	80 - 120

Lab Sample ID: 600-130213-16 MS
Matrix: Water
Analysis Batch: 127672

Client Sample ID: ARTESIA -MW21- 04282016
Prep Type: Dissolved
Prep Batch: 127668

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	0.0116	U F1	5.00	3.857	F1	mg/L		77	80 - 120

Lab Sample ID: 600-130213-16 MSD
Matrix: Water
Analysis Batch: 127672

Client Sample ID: ARTESIA -MW21- 04282016
Prep Type: Dissolved
Prep Batch: 127668

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese, Dissolved	0.0116	U F1	5.00	3.441	F1	mg/L		69	80 - 120	11	20

GC/MS VOA

Analysis Batch: 187679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130213-6	ARTESIA -MD01- 04282016	Total/NA	Water	8260B	
600-130213-7	ARTESIA -MW22- 04282016	Total/NA	Water	8260B	
600-130213-8	ARTESIA -MW25- 04282016	Total/NA	Water	8260B	
600-130213-9	ARTESIA -MW26- 04282016	Total/NA	Water	8260B	
600-130213-10	ARTESIA -MW28- 04282016	Total/NA	Water	8260B	
600-130213-11	ARTESIA -MW29- 04282016	Total/NA	Water	8260B	
600-130213-12	ARTESIA -MW33- 04282016	Total/NA	Water	8260B	
600-130213-13	ARTESIA -MW34- 04282016	Total/NA	Water	8260B	
600-130213-14	ARTESIA -MW32- 04282016	Total/NA	Water	8260B	
600-130213-15	ARTESIA -MW31- 04282016	Total/NA	Water	8260B	
600-130213-16	ARTESIA -MW21- 04282016	Total/NA	Water	8260B	
600-130213-17	ARTESIA -MW30- 04282016	Total/NA	Water	8260B	
600-130213-20	ARTESIA -MD02- 04282016	Total/NA	Water	8260B	
600-130213-21	ARTESIA -INLET- 04282016	Total/NA	Water	8260B	
MB 600-187679/9	Method Blank	Total/NA	Water	8260B	
LCS 600-187679/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-187679/5	Lab Control Sample Dup	Total/NA	Water	8260B	
600-130213-16 MS	ARTESIA -MW21- 04282016	Total/NA	Water	8260B	
600-130213-16 MSD	ARTESIA -MW21- 04282016	Total/NA	Water	8260B	

Analysis Batch: 188079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130213-1	ARTESIA -TB01- 04282016	Total/NA	Water	8260B	
600-130213-2	ARTESIA -MW15- 04282016	Total/NA	Water	8260B	
600-130213-3	ARTESIA -MW12- 04282016	Total/NA	Water	8260B	
600-130213-4	ARTESIA -MW17C- 04282016	Total/NA	Water	8260B	
600-130213-5	ARTESIA -MW18- 04282016	Total/NA	Water	8260B	
600-130213-22	ARTESIA -MIDDLE- 04282016	Total/NA	Water	8260B	
600-130213-23	ARTESIA -EFFLUENT- 04282016	Total/NA	Water	8260B	
MB 600-188079/9	Method Blank	Total/NA	Water	8260B	

Metals

Prep Batch: 127668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130213-5	ARTESIA -MW18- 04282016	Dissolved	Water	3010A	
600-130213-6	ARTESIA -MD01- 04282016	Dissolved	Water	3010A	
600-130213-7	ARTESIA -MW22- 04282016	Dissolved	Water	3010A	
600-130213-8	ARTESIA -MW25- 04282016	Dissolved	Water	3010A	
600-130213-9	ARTESIA -MW26- 04282016	Dissolved	Water	3010A	
600-130213-10	ARTESIA -MW28- 04282016	Dissolved	Water	3010A	
600-130213-11	ARTESIA -MW29- 04282016	Dissolved	Water	3010A	
600-130213-13	ARTESIA -MW34- 04282016	Dissolved	Water	3010A	
600-130213-14	ARTESIA -MW32- 04282016	Dissolved	Water	3010A	
600-130213-15	ARTESIA -MW31- 04282016	Dissolved	Water	3010A	
600-130213-16	ARTESIA -MW21- 04282016	Dissolved	Water	3010A	
600-130213-17	ARTESIA -MW30- 04282016	Dissolved	Water	3010A	
600-130213-20	ARTESIA -MD02- 04282016	Dissolved	Water	3010A	
600-130213-21	ARTESIA -INLET- 04282016	Dissolved	Water	3010A	
600-130213-22	ARTESIA -MIDDLE- 04282016	Dissolved	Water	3010A	

Metals (Continued)

Prep Batch: 127668 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130213-23	ARTESIA -EFFLUENT- 04282016	Dissolved	Water	3010A	
MB 560-127668/1-A	Method Blank	Total/NA	Water	3010A	
LCS 560-127668/2-A	Lab Control Sample	Total/NA	Water	3010A	
600-130213-16 MS	ARTESIA -MW21- 04282016	Dissolved	Water	3010A	
600-130213-16 MSD	ARTESIA -MW21- 04282016	Dissolved	Water	3010A	

Analysis Batch: 127672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130213-5	ARTESIA -MW18- 04282016	Dissolved	Water	6020	127668
600-130213-6	ARTESIA -MD01- 04282016	Dissolved	Water	6020	127668
600-130213-7	ARTESIA -MW22- 04282016	Dissolved	Water	6020	127668
600-130213-8	ARTESIA -MW25- 04282016	Dissolved	Water	6020	127668
600-130213-9	ARTESIA -MW26- 04282016	Dissolved	Water	6020	127668
600-130213-10	ARTESIA -MW28- 04282016	Dissolved	Water	6020	127668
600-130213-11	ARTESIA -MW29- 04282016	Dissolved	Water	6020	127668
600-130213-13	ARTESIA -MW34- 04282016	Dissolved	Water	6020	127668
600-130213-14	ARTESIA -MW32- 04282016	Dissolved	Water	6020	127668
600-130213-15	ARTESIA -MW31- 04282016	Dissolved	Water	6020	127668
600-130213-16	ARTESIA -MW21- 04282016	Dissolved	Water	6020	127668
600-130213-17	ARTESIA -MW30- 04282016	Dissolved	Water	6020	127668
600-130213-20	ARTESIA -MD02- 04282016	Dissolved	Water	6020	127668
600-130213-21	ARTESIA -INLET- 04282016	Dissolved	Water	6020	127668
600-130213-22	ARTESIA -MIDDLE- 04282016	Dissolved	Water	6020	127668
600-130213-23	ARTESIA -EFFLUENT- 04282016	Dissolved	Water	6020	127668
MB 560-127668/1-A	Method Blank	Total/NA	Water	6020	127668
LCS 560-127668/2-A	Lab Control Sample	Total/NA	Water	6020	127668
600-130213-16 MS	ARTESIA -MW21- 04282016	Dissolved	Water	6020	127668
600-130213-16 MSD	ARTESIA -MW21- 04282016	Dissolved	Water	6020	127668

Client Sample ID: ARTESIA -TB01- 04282016
Lab Sample ID: 600-130213-1
Date Collected: 04/28/16 07:00
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	188079	05/08/16 13:37	WS1	TAL HOU

Client Sample ID: ARTESIA -MW15- 04282016
Lab Sample ID: 600-130213-2
Date Collected: 04/28/16 08:10
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	188079	05/08/16 16:59	WS1	TAL HOU

Client Sample ID: ARTESIA -MW12- 04282016
Lab Sample ID: 600-130213-3
Date Collected: 04/28/16 08:20
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	188079	05/08/16 20:47	WS1	TAL HOU

Client Sample ID: ARTESIA -MW17C- 04282016
Lab Sample ID: 600-130213-4
Date Collected: 04/28/16 08:45
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	188079	05/08/16 17:24	WS1	TAL HOU

Client Sample ID: ARTESIA -MW18- 04282016
Lab Sample ID: 600-130213-5
Date Collected: 04/28/16 09:15
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	188079	05/08/16 17:50	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 18:21	JEM	TAL CC

Client Sample ID: ARTESIA -MD01- 04282016
Lab Sample ID: 600-130213-6
Date Collected: 04/28/16 09:20
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 14:16	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 18:27	JEM	TAL CC

Client Sample ID: ARTESIA -MW22- 04282016
Lab Sample ID: 600-130213-7
Date Collected: 04/28/16 10:10
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 14:40	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 18:58	JEM	TAL CC

Client Sample ID: ARTESIA -MW25- 04282016
Lab Sample ID: 600-130213-8
Date Collected: 04/28/16 10:25
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 15:05	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 19:04	JEM	TAL CC

Client Sample ID: ARTESIA -MW26- 04282016
Lab Sample ID: 600-130213-9
Date Collected: 04/28/16 11:00
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 15:52	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 19:10	JEM	TAL CC

Client Sample ID: ARTESIA -MW28- 04282016
Lab Sample ID: 600-130213-10
Date Collected: 04/28/16 11:20
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 16:16	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 19:15	JEM	TAL CC

Client Sample ID: ARTESIA -MW29- 04282016
Lab Sample ID: 600-130213-11
Date Collected: 04/28/16 11:45
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 16:40	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 19:21	JEM	TAL CC

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-130213-1

Client Sample ID: ARTESIA -MW33- 04282016
Lab Sample ID: 600-130213-12
Date Collected: 04/28/16 12:00
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 17:04	WS1	TAL HOU

Client Sample ID: ARTESIA -MW34- 04282016
Lab Sample ID: 600-130213-13
Date Collected: 04/28/16 12:30
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 17:28	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 19:27	JEM	TAL CC

Client Sample ID: ARTESIA -MW32- 04282016
Lab Sample ID: 600-130213-14
Date Collected: 04/28/16 13:20
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 17:51	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 19:33	JEM	TAL CC

Client Sample ID: ARTESIA -MW31- 04282016
Lab Sample ID: 600-130213-15
Date Collected: 04/28/16 13:40
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 18:15	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 19:39	JEM	TAL CC

Client Sample ID: ARTESIA -MW21- 04282016
Lab Sample ID: 600-130213-16
Date Collected: 04/28/16 14:10
Matrix: Water
Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 15:29	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 17:58	JEM	TAL CC

Client Sample ID: ARTESIA -MW30- 04282016

Lab Sample ID: 600-130213-17

Date Collected: 04/28/16 14:50

Matrix: Water

Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 18:39	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 19:44	JEM	TAL CC

Client Sample ID: ARTESIA -MD02- 04282016

Lab Sample ID: 600-130213-20

Date Collected: 04/28/16 15:00

Matrix: Water

Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 19:03	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 19:50	JEM	TAL CC

Client Sample ID: ARTESIA -INLET- 04282016

Lab Sample ID: 600-130213-21

Date Collected: 04/28/16 15:15

Matrix: Water

Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	187679	05/03/16 19:26	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 20:21	JEM	TAL CC

Client Sample ID: ARTESIA -MIDDLE- 04282016

Lab Sample ID: 600-130213-22

Date Collected: 04/28/16 15:20

Matrix: Water

Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	188079	05/08/16 18:15	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 20:27	JEM	TAL CC

Client Sample ID: ARTESIA -EFFLUENT- 04282016

Lab Sample ID: 600-130213-23

Date Collected: 04/28/16 15:25

Matrix: Water

Date Received: 05/02/16 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	188079	05/08/16 18:40	WS1	TAL HOU
Dissolved	Prep	3010A			127668	05/04/16 13:30	JEM	TAL CC
Dissolved	Analysis	6020		1	127672	05/04/16 20:33	JEM	TAL CC

Laboratory References:

TAL CC = TestAmerica Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Default Detection Limits

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-130213-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	RL	MDL	Units	Method
1,1-Dichloroethane	0.00100	0.000168	mg/L	8260B
1,1-Dichloroethene	0.00100	0.000192	mg/L	8260B
Benzene	0.00100	0.000176	mg/L	8260B
Naphthalene	0.00200	0.000129	mg/L	8260B
Tetrachloroethene	0.00100	0.000333	mg/L	8260B

Method: 6020 - Metals (ICP/MS) - Dissolved

Prep: 3010A

Analyte	RL	MDL	Units	Method
Manganese, Dissolved	0.0500	0.0116	mg/L	6020

Certification Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-130213-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	16-046-0	08-04-17
Louisiana	NELAP	6	01967	06-30-17
Oklahoma	State Program	6	2015-050	08-31-17
Texas	NELAP	6	T104704223-16-20	10-31-17
USDA	Federal		P330-14-00192	06-06-17

Laboratory: TestAmerica Corpus Christi

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	2015-119	08-31-17
Texas	NELAP	6	T104704210-16-18	03-31-17
USDA	Federal		P330-14-00328	09-30-17

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Instrument ID: CHVOAMS07 Analysis Batch Number: 184699

Lab Sample ID: IC 600-184699/2 Client Sample ID:

Date Analyzed: 03/21/16 09:46 Lab File ID: A08101.d GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	4.92	Baseline	shenw	03/21/16 12:08
n-Butanol	8.21	Baseline	shenw	03/21/16 12:18
1,4-Dioxane	9.08	Baseline	shenw	03/21/16 12:08
1,2,3-Trichloropropane	12.64	Baseline	shenw	03/21/16 12:08
trans-1,4-Dichloro-2-butene	12.64	Baseline	shenw	03/21/16 12:08
1,2-Dibromo-3-Chloropropane	15.08	Baseline	shenw	03/21/16 12:08

Lab Sample ID: IC 600-184699/3 Client Sample ID:

Date Analyzed: 03/21/16 10:11 Lab File ID: A08102.d GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Butanone (MEK)	7.29	Baseline	shenw	03/21/16 12:19
1,2-Dibromo-3-Chloropropane	15.09	Baseline	shenw	03/21/16 12:11

Lab Sample ID: IC 600-184699/8 Client Sample ID:

Date Analyzed: 03/21/16 12:18 Lab File ID: A08107.d GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl acrylate	8.82	Baseline	shenw	03/21/16 12:46

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Instrument ID: CHVOAMS07 Analysis Batch Number: 187679

Lab Sample ID: CCVIS 600-187679/2 Client Sample ID:

Date Analyzed: 05/03/16 11:48 Lab File ID: A12401b.d GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	16.87	Baseline	shenw	05/03/16 13:01

Method 8260B Low Level

Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX 60 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
ARTESIA -TB01-04282016	600-130213-1	79	94	84	121
ARTESIA -MW15-04282016	600-130213-2	80	93	84	121
ARTESIA -MW12-04282016	600-130213-3	83	101	82	118
ARTESIA -MW17C-04282016	600-130213-4	81	96	84	121
ARTESIA -MW18-04282016	600-130213-5	81	97	83	120
ARTESIA -MD01-04282016	600-130213-6	102	106	90	97
ARTESIA -MW22-04282016	600-130213-7	102	112	86	95
ARTESIA -MW25-04282016	600-130213-8	103	110	88	90
ARTESIA -MW26-04282016	600-130213-9	104	110	87	103
ARTESIA -MW28-04282016	600-130213-10	104	111	87	93
ARTESIA -MW29-04282016	600-130213-11	108	115	87	103
ARTESIA -MW33-04282016	600-130213-12	108	111	91	84
ARTESIA -MW34-04282016	600-130213-13	109	118	86	96
ARTESIA -MW32-04282016	600-130213-14	108	112	90	91
ARTESIA -MW31-04282016	600-130213-15	111	118	89	103
ARTESIA -MW21-04282016	600-130213-16	104	103	92	89
ARTESIA -MW30-04282016	600-130213-17	111	116	84	94
ARTESIA -MD02-04282016	600-130213-20	108	120	90	90
ARTESIA -INLET-04282016	600-130213-21	112	109	91	91
ARTESIA -MIDDLE-04282016	600-130213-22	83	99	85	122
ARTESIA -EFFLUENT-04282016	600-130213-23	81	99	83	119
	MB 600-187679/9	102	108	85	93
	MB 600-188079/9	81	97	84	123
	LCS 600-187679/4	98	111	79	99
	LCSD 600-187679/5	93	112	72	93

	QC LIMITS
DBFM = Dibromofluoromethane	62-130
DCA = 1,2-Dichloroethane-d4 (Surr)	50-134
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	67-139

Column to be used to flag recovery values

FORM II 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX 60 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
ARTESIA -MW21-04282016 MS	600-130213-16 MS	109	105	85	91
ARTESIA -MW21-04282016 MSD	600-130213-16 MSD	111	104	85	89

	QC LIMITS
DBFM = Dibromofluoromethane	62-130
DCA = 1,2-Dichloroethane-d4 (Surr)	50-134
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	67-139

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A12403a.d

Lab ID: LCS 600-187679/4 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.01032	103	70-140	
1,1-Dichloroethene	0.0100	0.008783	88	58-148	
Benzene	0.0100	0.007838	78	70-130	
Naphthalene	0.0100	0.007855	79	10-150	
Tetrachloroethene	0.0100	0.01061	106	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A12404.d

Lab ID: LCSD 600-187679/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.009479	95	9	20	70-140	
1,1-Dichloroethene	0.0100	0.008360	84	5	20	58-148	
Benzene	0.0100	0.007205	72	8	20	70-130	
Naphthalene	0.0100	0.008263	83	5	20	10-150	
Tetrachloroethene	0.0100	0.009088	91	15	20	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A12423.d

Lab ID: 600-130213-16 MS Client ID: ARTESIA -MW21- 04282016 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.000168 U	0.01058	106	70-140	
1,1-Dichloroethene	0.0100	0.000192 U	0.007814	78	58-148	
Benzene	0.0100	0.000176 U	0.007892	79	70-130	
Naphthalene	0.0100	0.000129 U	0.005579	56	10-150	
Tetrachloroethene	0.0100	0.000333 U	0.009823	98	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A12424.d

Lab ID: 600-130213-16 MSD Client ID: ARTESIA -MW21- 04282016 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.01103	110	4	30	70-140	
1,1-Dichloroethene	0.0100	0.007972	80	2	30	58-148	
Benzene	0.0100	0.008195	82	4	30	70-130	
Naphthalene	0.0100	0.007195	72	25	30	10-150	
Tetrachloroethene	0.0100	0.01072	107	9	30	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab File ID: A12408.d Lab Sample ID: MB 600-187679/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: CHVOAMS07 Date Analyzed: 05/03/2016 13:52

GC Column: DB-VRX 60 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-187679/4	A12403a.d	05/03/2016 12:41
	LCSD 600-187679/5	A12404.d	05/03/2016 13:04
ARTESIA -MD01- 04282016	600-130213-6	A12409.d	05/03/2016 14:16
ARTESIA -MW22- 04282016	600-130213-7	A12410.d	05/03/2016 14:40
ARTESIA -MW25- 04282016	600-130213-8	A12411.d	05/03/2016 15:05
ARTESIA -MW21- 04282016	600-130213-16	A12412.d	05/03/2016 15:29
ARTESIA -MW26- 04282016	600-130213-9	A12413.d	05/03/2016 15:52
ARTESIA -MW28- 04282016	600-130213-10	A12414.d	05/03/2016 16:16
ARTESIA -MW29- 04282016	600-130213-11	A12415.d	05/03/2016 16:40
ARTESIA -MW33- 04282016	600-130213-12	A12416.d	05/03/2016 17:04
ARTESIA -MW34- 04282016	600-130213-13	A12417.d	05/03/2016 17:28
ARTESIA -MW32- 04282016	600-130213-14	A12418.d	05/03/2016 17:51
ARTESIA -MW31- 04282016	600-130213-15	A12419.d	05/03/2016 18:15
ARTESIA -MW30- 04282016	600-130213-17	A12420.d	05/03/2016 18:39
ARTESIA -MD02- 04282016	600-130213-20	A12421.d	05/03/2016 19:03
ARTESIA -INLET- 04282016	600-130213-21	A12422.d	05/03/2016 19:26
ARTESIA -MW21- 04282016 MS	600-130213-16 MS	A12423.d	05/03/2016 19:50
ARTESIA -MW21- 04282016 MSD	600-130213-16 MSD	A12424.d	05/03/2016 20:14

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab File ID: C12808.D Lab Sample ID: MB 600-188079/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: CHVOAMS01 Date Analyzed: 05/08/2016 13:11

GC Column: DB-VRX 60 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
ARTESIA -TB01- 04282016	600-130213-1	C12809.D	05/08/2016 13:37
ARTESIA -MW15- 04282016	600-130213-2	C12817.D	05/08/2016 16:59
ARTESIA -MW17C- 04282016	600-130213-4	C12818.D	05/08/2016 17:24
ARTESIA -MW18- 04282016	600-130213-5	C12819.D	05/08/2016 17:50
ARTESIA -MIDDLE- 04282016	600-130213-22	C12820.D	05/08/2016 18:15
ARTESIA -EFFLUENT- 04282016	600-130213-23	C12821.D	05/08/2016 18:40
ARTESIA -MW12- 04282016	600-130213-3	C12826.D	05/08/2016 20:47

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab File ID: C02200A.D BFB Injection Date: 01/22/2016

Instrument ID: CHVOAMS01 BFB Injection Time: 11:16

Analysis Batch No.: 181051

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.1	
75	30.0 - 60.0 % of mass 95	44.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	73.4	
175	5.0 - 9.0 % of mass 174	5.4	(7.3) 1
176	95.0 - 101.0 % of mass 174	71.2	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-181051/2	C02201.D	01/22/2016	11:43
	IC 600-181051/3	C02202.D	01/22/2016	12:09
	IC 600-181051/4	C02203A.D	01/22/2016	14:22
	IC 600-181051/5	C02204A.D	01/22/2016	14:48
	ICIS 600-181051/6	C02205A.D	01/22/2016	15:14
	IC 600-181051/7	C02206.D	01/22/2016	15:40
	IC 600-181051/8	C02207.D	01/22/2016	16:06

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab File ID: C12800.D BFB Injection Date: 05/08/2016

Instrument ID: CHVOAMS01 BFB Injection Time: 09:43

Analysis Batch No.: 188079

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 60.0 % of mass 95	50.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	71.5	
175	5.0 - 9.0 % of mass 174	5.2	(7.2) 1
176	95.0 - 101.0 % of mass 174	68.8	(96.3) 1
177	5.0 - 9.0 % of mass 176	4.6	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-188079/2	C12801.D	05/08/2016	10:14
	MB 600-188079/9	C12808.D	05/08/2016	13:11
ARTESIA -TB01- 04282016	600-130213-1	C12809.D	05/08/2016	13:37
ARTESIA -MW15- 04282016	600-130213-2	C12817.D	05/08/2016	16:59
ARTESIA -MW17C- 04282016	600-130213-4	C12818.D	05/08/2016	17:24
ARTESIA -MW18- 04282016	600-130213-5	C12819.D	05/08/2016	17:50
ARTESIA -MIDDLE- 04282016	600-130213-22	C12820.D	05/08/2016	18:15
ARTESIA -EFFLUENT- 04282016	600-130213-23	C12821.D	05/08/2016	18:40
ARTESIA -MW12- 04282016	600-130213-3	C12826.D	05/08/2016	20:47

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab File ID: A08100.d BFB Injection Date: 03/21/2016

Instrument ID: CHVOAMS07 BFB Injection Time: 08:49

Analysis Batch No.: 184699

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.6	
75	30.0 - 60.0 % of mass 95	50.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	81.5	
175	5.0 - 9.0 % of mass 174	6.2	(7.6) 1
176	95.0 - 101.0 % of mass 174	79.0	(96.9) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-184699/2	A08101.d	03/21/2016	09:46
	IC 600-184699/3	A08102.d	03/21/2016	10:11
	IC 600-184699/4	A08103.d	03/21/2016	10:37
	IC 600-184699/5	A08104.d	03/21/2016	11:02
	ICIS 600-184699/6	A08105.d	03/21/2016	11:28
	IC 600-184699/7	A08106.d	03/21/2016	11:53
	IC 600-184699/8	A08107.d	03/21/2016	12:18

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab File ID: A12400.d BFB Injection Date: 05/03/2016

Instrument ID: CHVOAMS07 BFB Injection Time: 08:40

Analysis Batch No.: 187679

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	34.5	
75	30.0 - 60.0 % of mass 95	58.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.8	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	82.4	
175	5.0 - 9.0 % of mass 174	6.2	(7.5) 1
176	95.0 - 101.0 % of mass 174	80.0	(97.1) 1
177	5.0 - 9.0 % of mass 176	6.2	(7.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-187679/2	A12401b.d	05/03/2016	11:48
	LCS 600-187679/4	A12403a.d	05/03/2016	12:41
	LCSD 600-187679/5	A12404.d	05/03/2016	13:04
	MB 600-187679/9	A12408.d	05/03/2016	13:52
ARTESIA -MD01- 04282016	600-130213-6	A12409.d	05/03/2016	14:16
ARTESIA -MW22- 04282016	600-130213-7	A12410.d	05/03/2016	14:40
ARTESIA -MW25- 04282016	600-130213-8	A12411.d	05/03/2016	15:05
ARTESIA -MW21- 04282016	600-130213-16	A12412.d	05/03/2016	15:29
ARTESIA -MW26- 04282016	600-130213-9	A12413.d	05/03/2016	15:52
ARTESIA -MW28- 04282016	600-130213-10	A12414.d	05/03/2016	16:16
ARTESIA -MW29- 04282016	600-130213-11	A12415.d	05/03/2016	16:40
ARTESIA -MW33- 04282016	600-130213-12	A12416.d	05/03/2016	17:04
ARTESIA -MW34- 04282016	600-130213-13	A12417.d	05/03/2016	17:28
ARTESIA -MW32- 04282016	600-130213-14	A12418.d	05/03/2016	17:51
ARTESIA -MW31- 04282016	600-130213-15	A12419.d	05/03/2016	18:15
ARTESIA -MW30- 04282016	600-130213-17	A12420.d	05/03/2016	18:39
ARTESIA -MD02- 04282016	600-130213-20	A12421.d	05/03/2016	19:03
ARTESIA -INLET- 04282016	600-130213-21	A12422.d	05/03/2016	19:26
ARTESIA -MW21- 04282016 MS	600-130213-16 MS	A12423.d	05/03/2016	19:50
ARTESIA -MW21- 04282016 MSD	600-130213-16 MSD	A12424.d	05/03/2016	20:14

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Sample No.: CCVIS 600-188079/2 Date Analyzed: 05/08/2016 10:14

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm)

Lab File ID (Standard): C12801.D Heated Purge: (Y/N) N

Calibration ID: 9203

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		340380	8.41	169220	11.35	139382	13.97
UPPER LIMIT		680760	8.91	338440	11.85	278764	14.47
LOWER LIMIT		170190	7.91	84610	10.85	69691	13.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 600-188079/9		337592	8.42	167243	11.36	134633	13.97
600-130213-1	ARTESIA -TB01-04282016	336892	8.42	164210	11.35	130839	13.97
600-130213-2	ARTESIA -MW15-04282016	365908	8.42	178882	11.35	147226	13.97
600-130213-4	ARTESIA -MW17C-04282016	359117	8.42	176899	11.35	145343	13.97
600-130213-5	ARTESIA -MW18-04282016	351811	8.42	174202	11.35	143620	13.97
600-130213-22	ARTESIA -MIDDLE-04282016	344042	8.42	168561	11.36	138117	13.98
600-130213-23	ARTESIA -EFFLUENT-04282016	344101	8.42	171165	11.36	141447	13.97
600-130213-3	ARTESIA -MW12-04282016	300902	8.42	155227	11.35	132255	13.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Sample No.: CCVIS 600-187679/2 Date Analyzed: 05/03/2016 11:48

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm)

Lab File ID (Standard): A12401b.d Heated Purge: (Y/N) N

Calibration ID: 8969

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		221458	8.63	73998	11.64	61125	14.22
UPPER LIMIT		442916	9.13	147996	12.14	122250	14.72
LOWER LIMIT		110729	8.13	36999	11.14	30563	13.72
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-187679/4		233382	8.63	74853	11.64	59655	14.22
LCSD 600-187679/5		236422	8.63	79040	11.64	61540	14.22
MB 600-187679/9		189827	8.63	61909	11.64	36867	14.23
600-130213-6	ARTESIA -MD01-04282016	248453	8.63	80107	11.64	47030	14.23
600-130213-7	ARTESIA -MW22-04282016	242302	8.63	79293	11.64	49589	14.23
600-130213-8	ARTESIA -MW25-04282016	231238	8.63	76592	11.64	51417	14.22
600-130213-16	ARTESIA -MW21-04282016	229216	8.63	71109	11.64	43533	14.23
600-130213-9	ARTESIA -MW26-04282016	223088	8.63	73196	11.64	40742	14.23
600-130213-10	ARTESIA -MW28-04282016	228841	8.63	76443	11.64	43490	14.23
600-130213-11	ARTESIA -MW29-04282016	228615	8.63	76020	11.64	43482	14.23
600-130213-12	ARTESIA -MW33-04282016	228790	8.63	72418	11.64	47508	14.22
600-130213-13	ARTESIA -MW34-04282016	225720	8.63	75834	11.64	43954	14.23
600-130213-14	ARTESIA -MW32-04282016	219922	8.63	70016	11.64	41537	14.22
600-130213-15	ARTESIA -MW31-04282016	230230	8.63	73382	11.64	42766	14.23
600-130213-17	ARTESIA -MW30-04282016	220633	8.63	75164	11.64	42539	14.22
600-130213-20	ARTESIA -MD02-04282016	210843	8.63	67737	11.64	40649	14.23
600-130213-21	ARTESIA -INLET-04282016	208414	8.63	65500	11.64	41047	14.23
600-130213-16 MS	ARTESIA -MW21-04282016 MS	262616	8.63	85480	11.64	73220	14.22
600-130213-16 MSD	ARTESIA -MW21-04282016 MSD	280820	8.63	91351	11.64	77907	14.22

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -TB01- 04282016 | Lab Sample ID: 600-130213-1

Matrix: Water | Lab File ID: C12809.D

Analysis Method: 8260B | Date Collected: 04/28/2016 07:00

Sample wt/vol: 20(mL) | Date Analyzed: 05/08/2016 13:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188079 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		50-134
460-00-4	4-Bromofluorobenzene	121		67-139
1868-53-7	Dibromofluoromethane	79		62-130
2037-26-5	Toluene-d8 (Surr)	84		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW15- 04282016 | Lab Sample ID: 600-130213-2

Matrix: Water | Lab File ID: C12817.D

Analysis Method: 8260B | Date Collected: 04/28/2016 08:10

Sample wt/vol: 20(mL) | Date Analyzed: 05/08/2016 16:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188079 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000354	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000342	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		50-134
460-00-4	4-Bromofluorobenzene	121		67-139
1868-53-7	Dibromofluoromethane	80		62-130
2037-26-5	Toluene-d8 (Surr)	84		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW12- 04282016 | Lab Sample ID: 600-130213-3

Matrix: Water | Lab File ID: C12826.D

Analysis Method: 8260B | Date Collected: 04/28/2016 08:20

Sample wt/vol: 20(mL) | Date Analyzed: 05/08/2016 20:47

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188079 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.0588		0.0200	0.00336
75-35-4	1,1-Dichloroethene	0.00384	U	0.0200	0.00384
71-43-2	Benzene	0.0323		0.0200	0.00352
91-20-3	Naphthalene	0.111		0.0400	0.00258
127-18-4	Tetrachloroethene	0.00666	U	0.0200	0.00666

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		50-134
460-00-4	4-Bromofluorobenzene	118		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	82		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW17C- 04282016 | Lab Sample ID: 600-130213-4

Matrix: Water | Lab File ID: C12818.D

Analysis Method: 8260B | Date Collected: 04/28/2016 08:45

Sample wt/vol: 20(mL) | Date Analyzed: 05/08/2016 17:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188079 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000267	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000397	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		50-134
460-00-4	4-Bromofluorobenzene	121		67-139
1868-53-7	Dibromofluoromethane	81		62-130
2037-26-5	Toluene-d8 (Surr)	84		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW18- 04282016 | Lab Sample ID: 600-130213-5

Matrix: Water | Lab File ID: C12819.D

Analysis Method: 8260B | Date Collected: 04/28/2016 09:15

Sample wt/vol: 20(mL) | Date Analyzed: 05/08/2016 17:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188079 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000398	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00148		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00156		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		50-134
460-00-4	4-Bromofluorobenzene	120		67-139
1868-53-7	Dibromofluoromethane	81		62-130
2037-26-5	Toluene-d8 (Surr)	83		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MD01- 04282016 | Lab Sample ID: 600-130213-6

Matrix: Water | Lab File ID: A12409.d

Analysis Method: 8260B | Date Collected: 04/28/2016 09:20

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 14:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000552	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00175		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00184		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		50-134
460-00-4	4-Bromofluorobenzene	97		67-139
1868-53-7	Dibromofluoromethane	102		62-130
2037-26-5	Toluene-d8 (Surr)	90		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW22- 04282016 Lab Sample ID: 600-130213-7

Matrix: Water Lab File ID: A12410.d

Analysis Method: 8260B Date Collected: 04/28/2016 10:10

Sample wt/vol: 20(mL) Date Analyzed: 05/03/2016 14:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187679 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00131		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00200		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00396		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		50-134
460-00-4	4-Bromofluorobenzene	95		67-139
1868-53-7	Dibromofluoromethane	102		62-130
2037-26-5	Toluene-d8 (Surr)	86		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW25- 04282016 | Lab Sample ID: 600-130213-8

Matrix: Water | Lab File ID: A12411.d

Analysis Method: 8260B | Date Collected: 04/28/2016 10:25

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 15:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00178		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00438		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00532		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		50-134
460-00-4	4-Bromofluorobenzene	90		67-139
1868-53-7	Dibromofluoromethane	103		62-130
2037-26-5	Toluene-d8 (Surr)	88		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW26- 04282016 Lab Sample ID: 600-130213-9

Matrix: Water Lab File ID: A12413.d

Analysis Method: 8260B Date Collected: 04/28/2016 11:00

Sample wt/vol: 20(mL) Date Analyzed: 05/03/2016 15:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187679 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00193		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00467		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00442		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		50-134
460-00-4	4-Bromofluorobenzene	103		67-139
1868-53-7	Dibromofluoromethane	104		62-130
2037-26-5	Toluene-d8 (Surr)	87		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW28- 04282016 Lab Sample ID: 600-130213-10

Matrix: Water Lab File ID: A12414.d

Analysis Method: 8260B Date Collected: 04/28/2016 11:20

Sample wt/vol: 20(mL) Date Analyzed: 05/03/2016 16:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187679 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00712		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0148		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0202		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		50-134
460-00-4	4-Bromofluorobenzene	93		67-139
1868-53-7	Dibromofluoromethane	104		62-130
2037-26-5	Toluene-d8 (Surr)	87		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW29- 04282016 | Lab Sample ID: 600-130213-11

Matrix: Water | Lab File ID: A12415.d

Analysis Method: 8260B | Date Collected: 04/28/2016 11:45

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 16:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00965		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0210		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0248		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		50-134
460-00-4	4-Bromofluorobenzene	103		67-139
1868-53-7	Dibromofluoromethane	108		62-130
2037-26-5	Toluene-d8 (Surr)	87		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW33- 04282016 | Lab Sample ID: 600-130213-12

Matrix: Water | Lab File ID: A12416.d

Analysis Method: 8260B | Date Collected: 04/28/2016 12:00

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 17:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		50-134
460-00-4	4-Bromofluorobenzene	84		67-139
1868-53-7	Dibromofluoromethane	108		62-130
2037-26-5	Toluene-d8 (Surr)	91		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW34- 04282016 | Lab Sample ID: 600-130213-13

Matrix: Water | Lab File ID: A12417.d

Analysis Method: 8260B | Date Collected: 04/28/2016 12:30

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 17:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00259		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00589		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00661		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		50-134
460-00-4	4-Bromofluorobenzene	96		67-139
1868-53-7	Dibromofluoromethane	109		62-130
2037-26-5	Toluene-d8 (Surr)	86		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW32- 04282016 | Lab Sample ID: 600-130213-14

Matrix: Water | Lab File ID: A12418.d

Analysis Method: 8260B | Date Collected: 04/28/2016 13:20

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 17:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00129		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000649	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00280		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		50-134
460-00-4	4-Bromofluorobenzene	91		67-139
1868-53-7	Dibromofluoromethane	108		62-130
2037-26-5	Toluene-d8 (Surr)	90		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW31- 04282016 Lab Sample ID: 600-130213-15

Matrix: Water Lab File ID: A12419.d

Analysis Method: 8260B Date Collected: 04/28/2016 13:40

Sample wt/vol: 20(mL) Date Analyzed: 05/03/2016 18:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187679 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		50-134
460-00-4	4-Bromofluorobenzene	103		67-139
1868-53-7	Dibromofluoromethane	111		62-130
2037-26-5	Toluene-d8 (Surr)	89		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW21- 04282016 | Lab Sample ID: 600-130213-16

Matrix: Water | Lab File ID: A12412.d

Analysis Method: 8260B | Date Collected: 04/28/2016 14:10

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 15:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		50-134
460-00-4	4-Bromofluorobenzene	89		67-139
1868-53-7	Dibromofluoromethane	104		62-130
2037-26-5	Toluene-d8 (Surr)	92		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW30- 04282016 | Lab Sample ID: 600-130213-17

Matrix: Water | Lab File ID: A12420.d

Analysis Method: 8260B | Date Collected: 04/28/2016 14:50

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00487		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00405		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0109		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		50-134
460-00-4	4-Bromofluorobenzene	94		67-139
1868-53-7	Dibromofluoromethane	111		62-130
2037-26-5	Toluene-d8 (Surr)	84		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MD02- 04282016 | Lab Sample ID: 600-130213-20

Matrix: Water | Lab File ID: A12421.d

Analysis Method: 8260B | Date Collected: 04/28/2016 15:00

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 19:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00499		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00444		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0123		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		50-134
460-00-4	4-Bromofluorobenzene	90		67-139
1868-53-7	Dibromofluoromethane	108		62-130
2037-26-5	Toluene-d8 (Surr)	90		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -INLET- 04282016 | Lab Sample ID: 600-130213-21

Matrix: Water | Lab File ID: A12422.d

Analysis Method: 8260B | Date Collected: 04/28/2016 15:15

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 19:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00615		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0163		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0213		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		50-134
460-00-4	4-Bromofluorobenzene	91		67-139
1868-53-7	Dibromofluoromethane	112		62-130
2037-26-5	Toluene-d8 (Surr)	91		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MIDDLE- 04282016 | Lab Sample ID: 600-130213-22

Matrix: Water | Lab File ID: C12820.D

Analysis Method: 8260B | Date Collected: 04/28/2016 15:20

Sample wt/vol: 20(mL) | Date Analyzed: 05/08/2016 18:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188079 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00515		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00180		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	122		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	85		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -EFFLUENT- | Lab Sample ID: 600-130213-23

Matrix: Water | Lab File ID: C12821.D

Analysis Method: 8260B | Date Collected: 04/28/2016 15:25

Sample wt/vol: 20(mL) | Date Analyzed: 05/08/2016 18:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188079 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	119		67-139
1868-53-7	Dibromofluoromethane	81		62-130
2037-26-5	Toluene-d8 (Surr)	83		70-130

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-181051/2	C02201.D
Level 2	IC 600-181051/3	C02202.D
Level 3	IC 600-181051/4	C02203A.D
Level 4	IC 600-181051/5	C02204A.D
Level 5	ICIS 600-181051/6	C02205A.D
Level 6	IC 600-181051/7	C02206.D
Level 7	IC 600-181051/8	C02207.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1850 0.2290	0.1903 0.2248	0.1849	0.2142	0.2159	Ave		0.2063				9.2		15.0			
Chloromethane	0.2864 0.2723	0.2667 0.2608	0.2469	0.2709	0.2647	Ave		0.2670			0.1000	4.5		15.0			
Vinyl chloride	0.1882 0.1555	0.1927 +++++	0.1874	0.2083	0.1869	Ave		0.1865				9.2		15.0			
Butadiene	0.1771 0.1817	0.1678 0.1569	0.1636	0.1866	0.1885	Ave		0.1746				6.9		15.0			
Bromomethane	0.1209 0.1932	0.1217 0.2092	0.1457	0.1631	0.1713	Lin1	-0.074	0.2016							0.9950		0.9900
Chloroethane	0.2048 0.2222	0.2001 0.2111	0.1932	0.2195	0.2187	Ave		0.2099				5.2		15.0			
Dichlorofluoromethane	0.4720 0.5528	0.4880 0.5341	0.4823	0.5399	0.5501	Ave		0.5170				6.7		15.0			
Acrolein	0.0165 0.0153	0.0168 0.0156	0.0152	0.0162	0.0155	Ave		0.0159				4.1		15.0			
Acetonitrile	0.0275 0.0158	0.0248 0.0157	0.0172	0.0169	0.0161	Lin1	0.0653	0.0156							0.9990		0.9900
Trichlorofluoromethane	0.3480 0.4405	0.3521 0.4614	0.3650	0.4274	0.4321	Ave		0.4038				11.7		15.0			
Isopropyl alcohol	0.0101 0.0066	0.0089 0.0068	0.0068	0.0070	0.0065	Lin2	0.0187	0.0065							0.9960		0.9900
Acetone	0.0836 0.0288	0.0602 0.0326	0.0402	0.0326	0.0295	Lin1	0.0497	0.0302							0.9930		0.9900
Ethyl ether	0.1564 0.1659	0.1791 0.1679	0.1553	0.1704	0.1668	Ave		0.1660				4.9		15.0			
t-Butanol	0.0106 0.0115	0.0135 0.0116	0.0110	0.0121	0.0115	Ave		0.0117				7.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloroethene	0.2514 0.2712	0.2968 0.2707	0.2570	0.2838	0.2747	Ave		0.2722				5.6		15.0			
Acrylonitrile	0.0311 0.0354	0.0389 0.0348	0.0328	0.0361	0.0358	Ave		0.0350				7.1		15.0			
Iodomethane	0.3101 0.4092	0.3508 0.3946	0.3560	0.4147	0.4154	Ave		0.3787				10.7		15.0			
Methylene Chloride	+++++ 0.3116	0.8013 0.3005	0.4566	0.3798	0.3341	Lin1	0.4521	0.2897							0.9980		0.9900
Methyl acetate	0.1091 0.0929	0.1185 0.0874	0.0958	0.0988	0.0944	Ave		0.0995				10.7		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1994 0.2117	0.2238 0.2113	0.2015	0.2217	0.2174	Ave		0.2124				4.4		15.0			
3-Chloro-1-propene	0.1558 0.1709	0.1768 0.1349	0.1596	0.1801	0.1757	Ave		0.1648				9.7		15.0			
Carbon disulfide	0.9580 0.9212	0.9741 0.9359	0.8388	0.9302	0.9192	Ave		0.9253				4.7		15.0			
trans-1,2-Dichloroethene	0.2896 0.3014	0.3259 0.3023	0.2897	0.3155	0.3067	Ave		0.3045				4.3		15.0			
Methyl tert-butyl ether	0.5203 0.5659	0.6197 0.5809	0.5285	0.5832	0.5729	Ave		0.5673				6.0		15.0			
Propionitrile	0.0149 0.0181	0.0191 0.0184	0.0163	0.0183	0.0180	Ave		0.0176				8.3		15.0			
1,1-Dichloroethane	0.5072 0.5225	0.5737 0.5142	0.5079	0.5499	0.5357	Ave		0.5302			0.1000	4.7		15.0			
Vinyl acetate	0.2813 0.2833	0.3440 0.2722	0.2755	0.2959	0.2872	Ave		0.2913				8.4		15.0			
2-Chloro-1,3-butadiene	0.4360 0.4400	0.4907 0.4197	0.4306	0.4736	0.4565	Ave		0.4496				5.6		15.0			
Hexane	0.4354 0.4001	0.4785 0.3606	0.4180	0.4568	0.4358	Ave		0.4265				9.0		15.0			
Isopropyl ether	0.8377 0.7991	0.9560 0.7199	0.8192	0.8886	0.8281	Ave		0.8355				8.8		15.0			
2-Butanone (MEK)	0.0114 0.0163	0.0165 0.0158	0.0142	0.0171	0.0165	Ave		0.0154				12.9		15.0			
Methacrylonitrile	0.0183 0.0214	0.0237 0.0206	0.0210	0.0231	0.0225	Ave		0.0215				8.4		15.0			
cis-1,2-Dichloroethene	0.3194 0.3331	0.3662 0.3337	0.3260	0.3516	0.3410	Ave		0.3387				4.7		15.0			
Ethyl acetate	0.0784 0.0875	0.0985 0.0922	0.0816	0.0856	0.0878	Ave		0.0874				7.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobromomethane	0.1080 0.1251	0.1277 0.1261	0.1165	0.1307	0.1270	Ave		0.1230				6.5		15.0			
Chloroform	0.4910 0.4912	0.5457 0.4769	0.4886	0.5301	0.5081	Ave		0.5045				5.0		15.0			
Tert-butyl ethyl ether	0.7176 0.7482	0.8488 0.7128	0.7299	0.8007	0.7693	Ave		0.7610				6.5		15.0			
Isobutyl alcohol	0.0059 0.0074	0.0092 0.0077	0.0087	0.0085	0.0080	Ave		0.0079				13.4		15.0			
2,2-Dichloropropane	0.4633 0.4403	0.5028 0.4390	0.4499	0.4894	0.4703	Ave		0.4650				5.2		15.0			
Tetrahydrofuran	0.0520 0.0338	0.0452 0.0349	0.0396	0.0367	0.0350	Lin2	0.0184	0.0345							0.9990		0.9900
1,2-Dichloroethane	0.2434 0.2645	0.2974 0.2754	0.2442	0.2729	0.2649	Ave		0.2661				7.0		15.0			
1,1,1-Trichloroethane	0.4174 0.4428	0.4721 0.4483	0.4252	0.4644	0.4520	Ave		0.4460				4.4		15.0			
n-Butanol	0.0031 0.0037	0.0042 0.0037	0.0038	0.0038	0.0036	Ave		0.0037				9.4		15.0			
1,1-Dichloropropene	0.4153 0.4346	0.4684 0.4354	0.4154	0.4591	0.4429	Ave		0.4388				4.6		15.0			
Cyclohexane	0.4992 0.4981	0.5367 0.4982	0.4780	0.5268	0.5093	Ave		0.5066				3.9		15.0			
Carbon tetrachloride	0.3347 0.3613	0.3803 0.3649	0.3371	0.3774	0.3685	Ave		0.3606				5.0		15.0			
Benzene	1.3256 1.2553	1.4067 1.2055	1.2388	1.3375	1.2885	Ave		1.2940				5.3		15.0			
Tert-amyl methyl ether	0.6442 0.6836	0.7528 0.6991	0.6559	0.7087	0.6951	Ave		0.6914				5.2		15.0			
Isooctane	1.0160 1.0042	1.1325 0.9714	1.0017	1.0887	1.0490	Ave		1.0377				5.4		15.0			
Ethyl acrylate	0.2373 0.2582	0.3088 0.2635	0.2567	0.2765	0.2676	Ave		0.2669				8.3		15.0			
n-Heptane	0.3879 0.3850	0.4516 0.3735	0.3945	0.4321	0.4123	Ave		0.4053				6.9		15.0			
Dibromomethane	0.1150 0.1279	0.1390 0.1294	0.1222	0.1324	0.1304	Ave		0.1280				6.0		15.0			
1,2-Dichloropropane	0.2817 0.2909	0.3185 0.2774	0.2867	0.3167	0.3032	Ave		0.2964				5.6		15.0			
2-Nitropropane	0.0341 0.0406	0.0519 0.0405	0.0422	0.0448	0.0408	Ave		0.0421				12.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Trichloroethene	0.3103 0.3350	0.3563 0.3337	0.3233	0.3525	0.3433	Ave		0.3363				4.8		15.0			
Bromodichloromethane	0.3432 0.3819	0.4030 0.3920	0.3530	0.3920	0.3868	Ave		0.3789				5.8		15.0			
Methyl methacrylate	0.1738 0.1393	0.1625 0.1422	0.1373	0.1428	0.1421	Ave		0.1486				9.4		15.0			
1,4-Dioxane	+++++ 0.0009	0.0011 0.0010	0.0009	0.0009	0.0010	Ave		0.0010				7.1		15.0			
2-Chloroethyl vinyl ether	0.1015 0.1907	0.1460 0.1968	0.1429	0.1805	0.1849	Lin2	-0.091	0.1884							0.9960		0.9900
Methylcyclohexane	0.5709 0.5838	0.6369 0.5795	0.5642	0.6171	0.6002	Ave		0.5932				4.4		15.0			
cis-1,3-Dichloropropene	0.8258 0.8692	0.9591 0.8404	0.8525	0.9551	0.9242	Ave		0.8895				6.3		15.0			
4-Methyl-2-pentanone (MIBK)	0.1249 0.1225	0.1518 0.1286	0.1198	0.1284	0.1216	Ave		0.1282				8.5		15.0			
trans-1,3-Dichloropropene	0.6183 0.6877	0.7231 0.6791	0.6531	0.7445	0.7179	Ave		0.6891				6.3		15.0			
1,1,2-Trichloroethane	0.3362 0.3629	0.4031 0.3610	0.3537	0.3940	0.3781	Ave		0.3699				6.3		15.0			
Ethyl methacrylate	0.4308 0.4470	0.5114 0.4229	0.4353	0.4921	0.4681	Ave		0.4582				7.3		15.0			
Toluene	1.5889 1.5352	1.7594 1.3919	1.6029	1.7496	1.6564	Ave		1.6120				7.9		15.0			
1,3-Dichloropropane	0.6192 0.6632	0.7272 0.6531	0.6605	0.7341	0.7017	Ave		0.6798				6.2		15.0			
2-Hexanone	0.2221 0.1499	0.1888 0.1577	0.1630	0.1816	0.1672	Ave		0.1757				13.9		15.0			
n-Butyl acetate	0.3858 0.3628	0.5290 0.1346	0.3806	0.4128	0.3891	Qua	-0.152	0.5062	-0.007361						0.9960		0.9900
Dibromochloromethane	0.3781 0.4521	0.4553 0.4638	0.4039	0.4696	0.4607	Ave		0.4405				8.0		15.0			
1,2-Dibromoethane	0.3142 0.3567	0.3741 0.3620	0.3381	0.3777	0.3683	Ave		0.3559				6.3		15.0			
Tetrachloroethene	0.4481 0.4743	0.5280 0.4536	0.4699	0.5242	0.5037	Ave		0.4860				6.7		15.0			
1-Chlorohexane	0.6816 0.6037	0.7194 0.5775	0.6300	0.6830	0.6428	Ave		0.6483				7.6		15.0			
1,1,1,2-Tetrachloroethane	0.5330 0.5673	0.6056 0.5659	0.5513	0.6095	0.5877	Ave		0.5743				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobenzene	1.8443 1.8357	2.0500 1.7535	1.8426	2.0149	1.9380	Ave		1.8970			0.3000	5.7		15.0			
Ethylbenzene	0.9993 0.9972	1.1093 0.9534	1.0129	1.1063	1.0569	Ave		1.0336				5.7		15.0			
m-Xylene & p-Xylene	2.5344 2.4332	2.7682 2.3390	2.4972	2.7194	2.5643	Ave		2.5508				5.9		15.0			
Bromoform	0.1715 0.2299	0.2086 0.2487	0.1788	0.2120	0.2149	Ave		0.2092			0.1000	12.9		15.0			
Styrene	1.9558 2.0395	2.1975 1.9317	2.0151	2.2303	2.1527	Ave		2.0747				5.7		15.0			
1,1,2,2-Tetrachloroethane	0.4325 0.4116	0.5025 0.3697	0.4215	0.4579	0.4370	Ave		0.4332			0.3000	9.5		15.0			
o-Xylene	1.2766 1.2558	1.4176 1.1656	1.2746	1.4016	1.3284	Ave		1.3029				6.7		15.0			
trans-1,4-Dichloro-2-butene	0.0634 0.0942	0.0862 0.0968	0.0763	0.0904	0.0911	Ave		0.0855				13.8		15.0			
1,2,3-Trichloropropane	0.0971 0.1171	0.1193 0.1209	0.1050	0.1182	0.1147	Ave		0.1132				7.8		15.0			
Isopropylbenzene	3.0669 3.0671	3.3330 2.9726	2.9783	3.2528	3.1170	Ave		3.1125				4.4		15.0			
Bromobenzene	0.6753 0.7159	0.7501 0.7015	0.6779	0.7459	0.7213	Ave		0.7125				4.2		15.0			
N-Propylbenzene	0.8981 0.9229	1.0003 0.8798	0.8908	0.9788	0.9433	Ave		0.9306				4.9		15.0			
2-Chlorotoluene	0.7879 0.7959	0.8650 0.7596	0.7772	0.8418	0.8096	Ave		0.8053				4.6		15.0			
4-Chlorotoluene	2.3744 2.4315	2.6941 2.2819	2.3873	2.6028	2.5046	Ave		2.4681				5.8		15.0			
1,3,5-Trimethylbenzene	2.8874 2.7253	3.0901 2.5181	2.7179	2.9534	2.7816	Ave		2.8105				6.6		15.0			
Alpha Methyl Styrene	1.7217 2.0003	2.0336 1.7159	2.3093	1.9976	2.0273	Ave		1.9722				10.4		15.0			
tert-Butylbenzene	2.3803 2.3310	2.5839 2.1609	2.2967	2.4831	2.3763	Ave		2.3732				5.7		15.0			
1,2,4-Trimethylbenzene	2.9276 2.8469	3.2255 2.5848	2.8825	3.1204	2.9346	Ave		2.9317				7.0		15.0			
sec-Butylbenzene	3.5685 3.5135	3.8927 3.1859	3.5415	3.7966	3.5990	Ave		3.5854				6.3		15.0			
Benzyl chloride	0.9691 0.8913	1.0701 0.8194	0.9289	0.9993	0.9592	Ave		0.9482				8.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.4482 1.4361	1.5947 1.2837	1.4164	1.5603	1.4773	Ave		1.4595				7.0		15.0			
1,4-Dichlorobenzene	1.4629 1.3654	1.6385 1.1403	1.4613	1.5648	1.4771	Ave		1.4443				11.0		15.0			
4-Isopropyltoluene	3.1468 2.9559	3.4178 2.4770	3.1279	3.3262	3.1475	Ave		3.0856				9.9		15.0			
1,2,3-Trimethylbenzene	3.2215 3.0758	3.4769 2.7486	3.0975	3.3264	3.1875	Ave		3.1620				7.2		15.0			
1,2-Dichlorobenzene	1.1965 1.2312	1.3589 1.1393	1.2145	1.3223	1.2548	Ave		1.2454				6.0		15.0			
n-Butylbenzene	2.8583 2.7802	3.1625 2.4934	2.8259	3.0857	2.9278	Ave		2.8762				7.6		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0614	0.0689 0.0629	0.0585	0.0623	0.0619	Ave		0.0626				5.5		15.0			
1,3,5-Trichlorobenzene	1.0175 1.0347	1.1438 0.9194	1.0373	1.1136	1.0739	Ave		1.0486				7.0		15.0			
1,2,4-Trichlorobenzene	0.5588 0.6164	0.6799 0.5502	0.6234	0.6580	0.6374	Ave		0.6177				7.8		15.0			
Naphthalene	0.7374 0.8043	0.9370 0.7255	0.9137	0.8817	0.8477	Ave		0.8353				9.9		15.0			
Hexachlorobutadiene	0.1664 0.1567	0.1810 0.1428	0.1656	0.1737	0.1639	Ave		0.1643				7.4		15.0			
1,2,3-Trichlorobenzene	0.3898 0.3132	0.3616 0.2666	0.3625	0.3448	0.3328	Ave		0.3387				11.8		15.0			
Dibromofluoromethane	0.2822 0.2764	0.2933 0.2791	0.2631	0.2886	0.2798	Ave		0.2804				3.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2500 0.2283	0.2472 0.2356	0.2171	0.2355	0.2316	Ave		0.2351				4.8		15.0			
Toluene-d8 (Surr)	2.7665 2.1996	2.5502 2.0733	2.2720	2.4756	2.3644	Ave		2.3859				9.8		15.0			
4-Bromofluorobenzene	1.5094 0.9690	1.1414 0.9501	0.9388	1.0203	0.9756	Lin2	0.2686	0.9236							0.9940		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-181051/2	C02201.D
Level 2	IC 600-181051/3	C02202.D
Level 3	IC 600-181051/4	C02203A.D
Level 4	IC 600-181051/5	C02204A.D
Level 5	ICIS 600-181051/6	C02205A.D
Level 6	IC 600-181051/7	C02206.D
Level 7	IC 600-181051/8	C02207.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	2823 135413	5678 323735	11120	32274	64588	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloromethane	FB	Ave	4369 161054	7960 375574	14848	40830	79187	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	2871 91940	5750 +++++	11271	31390	55925	0.500 20.0	1.00 +++++	2.00	5.00	10.0
Butadiene	FB	Ave	2702 107471	5009 225959	9840	28119	56396	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromomethane	FB	Lin1	1844 114283	3633 301336	8761	24578	51251	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroethane	FB	Ave	3125 131391	5971 304061	11617	33073	65432	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	7201 326935	14562 769316	28999	81357	164576	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrolein	FB	Ave	1260 45286	2513 112656	4556	12171	23127	2.50 100	5.00 250	10.0	25.0	50.0
Acetonitrile	FB	Lin1	4203 93375	7409 226825	10328	25507	48311	5.00 200	10.0 500	20.0	50.0	100
Trichlorofluoromethane	FB	Ave	5309 260552	10509 664539	21949	64410	129286	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl alcohol	FB	Lin2	1546 39233	2648 97555	4115	10612	19384	5.00 200	10.0 500	20.0	50.0	100
Acetone	FB	Lin1	2550 34082	3595 93895	4833	9840	17652	1.00 40.0	2.00 100	4.00	10.0	20.0
Ethyl ether	FB	Ave	2386 98127	5346 241895	9339	25684	49911	0.500 20.0	1.00 50.0	2.00	5.00	10.0
t-Butanol	FB	Ave	1614 68238	4023 167162	6641	18190	34339	5.00 200	10.0 500	20.0	50.0	100
1,1-Dichloroethene	FB	Ave	3836 160395	8856 389853	15453	42765	82186	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acrylonitrile	FB	Ave	4752 209150	11605 501850	19731	54460	107163	5.00 200	10.0 500	20.0	50.0	100
Iodomethane	FB	Ave	4731 242006	10470 568300	21407	62497	124284	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methylene Chloride	FB	Lin1	+++++ 184295	23914 432770	27458	57234	99943	+++++ 20.0	1.00 50.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	8324 274585	17675 629476	28800	74461	141221	2.50 100	5.00 250	10.0	25.0	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	3042 125215	6678 304322	12119	33413	65036	0.500 20.0	1.00 50.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	2377 101071	5276 194293	9597	27138	52570	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	14617 544834	29071 1347998	50436	140175	275007	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	4419 178243	9727 435388	17423	47548	91765	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	7938 334692	18494 836726	31780	87891	171397	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Propionitrile	FB	Ave	2273 106898	5695 264938	9814	27590	53716	5.00 200	10.0 500	20.0	50.0	100
1,1-Dichloroethane	FB	Ave	7738 309054	17120 740625	30541	82860	160282	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	8585 335126	20532 784190	33129	89178	171821	1.00 40.0	2.00 100	4.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	6652 260218	14645 604532	25893	71370	136570	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexane	FB	Ave	6643 236648	14281 519378	25133	68835	130396	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl ether	FB	Ave	12781 472621	28531 1036908	49258	133904	247766	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	348 19276	987 45629	1708	5141	9866	1.00 40.0	2.00 100	4.00	10.0	20.0
Methacrylonitrile	FB	Ave	2795 126479	7075 296895	12626	34802	67286	5.00 200	10.0 500	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Ave	4874 197027	10927 480657	19604	52989	102021	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acetate	FB	Ave	2391 103487	5879 265738	9809	25794	52522	1.00 40.0	2.00 100	4.00	10.0	20.0
Chlorobromomethane	FB	Ave	1648 74009	3812 181658	7003	19690	37990	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroform	FB	Ave	7491 290500	16286 686952	29378	79882	152009	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Tert-butyl ethyl ether	FB	Ave	10949 442542	25331 1026669	43887	120665	230148	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isobutyl alcohol	FB	Ave	2268 109307	6871 276721	13029	31866	59509	12.5 500	25.0 1250	50.0	125	250
2,2-Dichloropropane	FB	Ave	7069 260424	15005 632312	27056	73751	140701	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Lin2	1588 40009	2695 100435	4757	11046	20918	1.00 40.0	2.00 100	4.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	3714 156414	8875 396695	14687	41126	79257	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	6369 261891	14089 645756	25569	69977	135231	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butanol	FB	Ave	1173 54459	3163 134380	5772	14497	26840	12.5 500	25.0 1250	50.0	125	250
1,1-Dichloropropene	FB	Ave	6337 257060	13979 627192	24981	69188	132512	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	7617 294568	16016 717526	28741	79379	152372	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	5106 213671	11350 525545	20271	56866	110254	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzene	FB	Ave	20226 742442	41981 1736401	74490	201550	385502	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tert-amyl methyl ether	FB	Ave	9829 404318	22465 1007002	39442	106802	207967	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isooctane	FB	Ave	15502 593938	33798 1399148	60232	164066	313842	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acrylate	FB	Ave	3621 152685	9216 379601	15433	41671	80061	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Heptane	FB	Ave	5918 227732	13477 538001	23724	65118	123344	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	1754 75673	4147 186337	7346	19949	39011	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	4298 172038	9505 399537	17240	47726	90706	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Nitropropane	FB	Ave	1040 48041	3098 116724	5079	13493	24420	1.00 40.0	2.00 100	4.00	10.0	20.0
Trichloroethene	FB	Ave	4734 198120	10632 480582	19439	53120	102706	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	5237 225889	12027 564548	21229	59074	115737	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl methacrylate	FB	Ave	5305 164831	9696 409710	16515	43027	85019	1.00 40.0	2.00 100	4.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane	FB	Ave	+++++ 11232	638 28008	1036	2798	5700	+++++ 400	20.0 1000	40.0	100	200
2-Chloroethyl vinyl ether	CBNZ d5	Lin2	1672 126254	4708 333505	9176	28616	59129	1.00 40.0	2.00 100	4.00	10.0	20.0
Methylcyclohexane	FB	Ave	8710 345307	19006 834632	33929	92990	179559	0.500 20.0	1.00 50.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	6802 287747	15469 712018	27380	75691	147783	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	3812 144872	9058 370352	14410	38706	72779	1.00 40.0	2.00 100	4.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	5093 227675	11662 575393	20976	58998	114804	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Ave	2769 120139	6502 305833	11359	31225	60467	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Ave	3548 147965	8248 358334	13980	38996	74855	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene	CBNZ d5	Ave	13087 508216	28377 1179245	51481	138656	264868	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	5100 219536	11729 553367	21213	58176	112204	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Hexanone	CBNZ d5	Ave	3658 99217	6090 267138	10468	28780	53468	1.00 40.0	2.00 100	4.00	10.0	20.0
n-Butyl acetate	CBNZ d5	Qua	3178 120114	8532 114040	12225	32717	62218	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromochloromethane	CBNZ d5	Ave	3114 149658	7343 392928	12972	37215	73671	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromoethane	CBNZ d5	Ave	2588 118076	6034 306676	10859	29936	58899	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	3691 157029	8516 384276	15093	41543	80542	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Ave	5614 199843	11603 489278	20235	54129	102794	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4390 187810	9768 479450	17705	48304	93973	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chlorobenzene	CBNZ d5	Ave	15191 607701	33063 1485594	59179	159684	309907	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	8231 330127	17891 807728	32530	87675	169002	0.500 20.0	1.00 50.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	20875 805491	44646 1981697	80204	215512	410051	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromoform	DCBd 4	Ave	1472 78236	3556 210682	6186	18076	36725	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Styrene	CBNZ d5	Ave	16109 675164	35442 1636594	64721	176754	344232	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	3562 136275	8105 313224	13536	36286	69873	0.500 20.0	1.00 50.0	2.00	5.00	10.0
o-Xylene	CBNZ d5	Ave	10515 415730	22864 987500	40936	111078	212425	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	544 32048	1470 82045	2638	7710	15577	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Ave	833 39834	2034 102461	3633	10084	19606	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropylbenzene	DCBd 4	Ave	26318 1043652	56813 2518229	103025	277412	532724	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	5795 243590	12786 594241	23449	63615	123282	0.500 20.0	1.00 50.0	2.00	5.00	10.0
N-Propylbenzene	DCBd 4	Ave	7707 314037	17051 745316	30813	83472	161228	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Ave	6761 270843	14745 643486	26886	71790	138370	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Ave	20376 827378	45923 1933169	82581	221979	428061	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24778 927360	52672 2133203	94018	251874	475409	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Alpha Methyl Styrene	DCBd 4	Ave	14773 680588	34661 1453464	79875	170341	346454	0.500 20.0	1.000 50.0	2.00	5.00	10.00
tert-Butylbenzene	DCBd 4	Ave	20426 793196	44044 1830669	79448	211764	406139	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	25123 968732	54981 2189770	99709	266115	501546	0.500 20.0	1.00 50.0	2.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	30623 1195560	66353 2698938	122505	323790	615110	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzyl chloride	DCBd 4	Ave	8316 303300	18241 694188	32133	85223	163930	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	12428 488680	27182 1087484	48996	133066	252480	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCBd 4	Ave	12554 464600	27930 966019	50550	133452	252455	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	27004 1005838	58259 2098386	108198	283670	537932	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	27645 1046636	59265 2328539	107149	283690	544769	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCBd 4	Ave	10268 418960	23164 965200	42010	112770	214465	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	24528 946022	53907 2112305	97754	263155	500385	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 20881	1175 53255	2023	5316	10573	+++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	8732 352097	19497 778892	35881	94970	183537	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	4795 209734	11590 466098	21565	56119	108939	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Naphthalene	DCBd 4	Ave	6328 273684	15972 614581	31608	75192	144886	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexachlorobutadiene	DCBd 4	Ave	1428 53336	3086 120960	5729	14816	28015	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	3345 106560	6164 225820	12539	29405	56881	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromofluoromethane	FB	Ave	4305 163501	8754 402070	15823	43483	83708	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	3815 135021	7378 339371	13056	35487	69289	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	22787 728160	41130 1756535	72969	196195	378089	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Bromofluorobenzene	DCBd 4	Lin2	12953 329729	19455 804898	32475	87013	166736	0.500 20.0	1.00 50.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-184699/2	A08101.d
Level 2	IC 600-184699/3	A08102.d
Level 3	IC 600-184699/4	A08103.d
Level 4	IC 600-184699/5	A08104.d
Level 5	ICIS 600-184699/6	A08105.d
Level 6	IC 600-184699/7	A08106.d
Level 7	IC 600-184699/8	A08107.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.0635 0.0703	0.0746 0.0680	0.0802	0.0733	0.0760	Ave		0.0723				7.6		15.0			
Chloromethane	0.1209 0.0957	0.1037 0.1105	0.0938	0.0916	0.0956	Ave		0.1017			0.1000	10.5		15.0			
Vinyl chloride	0.1724 0.1829	0.1879 0.1886	0.2084	0.1983	0.1951	Ave		0.1905				6.1		15.0			
Butadiene	0.1058 0.1042	0.0952 0.1152	0.1173	0.1110	0.1157	Ave		0.1092				7.3		15.0			
Bromomethane	0.0345 0.0292	0.0198 0.0344	0.0173	0.0199	0.0246	Lin	-0.050	0.0347							0.9950		0.9900
Chloroethane	0.1917 0.1125	0.1486 0.1175	0.1270	0.1210	0.1150	Lin2	0.0390	0.1118							0.9990		0.9900
Dichlorofluoromethane	0.4405 0.3872	0.4539 0.3497	0.3739	0.3869	0.3752	Ave		0.3953				9.5		15.0			
Acrolein	0.0195 0.0189	0.0174 0.0197	0.0169	0.0185	0.0172	Ave		0.0183				6.2		15.0			
Acetonitrile	0.0095 0.0097	0.0091 0.0092	0.0103	0.0101	0.0091	Ave		0.0096				5.2		15.0			
Trichlorofluoromethane	0.3685 0.3427	0.3807 0.3283	0.4026	0.3848	0.3841	Ave		0.3702				7.0		15.0			
Isopropyl alcohol	0.0047 0.0035	0.0049 0.0035	0.0041	0.0035	0.0034	Lin1	0.0086	0.0035							0.9990		0.9900
Acetone	0.0603 0.0212	0.0357 0.0211	0.0251	0.0238	0.0216	Lin1	0.0339	0.0205							0.9980		0.9900
Ethyl ether	0.1485 0.1990	0.1858 0.1990	0.1715	0.1976	0.1899	Ave		0.1845				10.1		15.0			
t-Butanol	0.0148 0.0199	0.0186 0.0199	0.0171	0.0198	0.0190	Ave		0.0184				10.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloroethene	0.2435 0.2685	0.2689 0.2405	0.2401	0.2594	0.2620	Ave		0.2547				5.1		15.0			
Acrylonitrile	0.0272 0.0351	0.0346 0.0341	0.0347	0.0366	0.0340	Ave		0.0337				9.0		15.0			
Iodomethane	0.0951 0.1367	0.0600 0.1749	0.0561	0.0765	0.0992	Lin	-0.373	0.1773							0.9900		0.9900
Methylene Chloride	0.4823 0.2509	0.4131 0.2309	0.3194	0.2867	0.2574	Lin2	0.1261	0.2504							0.9910		0.9900
Methyl acetate	0.0754 0.0752	0.0807 0.0723	0.0733	0.0815	0.0745	Ave		0.0761				4.7		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2653 0.2565	0.2686 0.2338	0.2465	0.2605	0.2502	Ave		0.2545				4.7		15.0			
3-Chloro-1-propene	0.1512 0.1606	0.1450 0.1360	0.1387	0.1553	0.1563	Ave		0.1490				6.3		15.0			
Carbon disulfide	0.8915 0.8115	0.8483 0.7374	0.7774	0.7994	0.7982	Ave		0.8091				6.1		15.0			
trans-1,2-Dichloroethene	0.3053 0.3168	0.3085 0.2984	0.2789	0.2829	0.2982	Ave		0.2984				4.6		15.0			
Methyl tert-butyl ether	0.3256 0.4546	0.4220 0.4440	0.3980	0.4390	0.4316	Ave		0.4164				10.5		15.0			
Propionitrile	0.0077 0.0135	0.0122 0.0130	0.0124	0.0134	0.0132	Lin2	-0.027	0.0137							0.9970		0.9900
1,1-Dichloroethane	0.7424 0.6951	0.7161 0.6480	0.6700	0.7168	0.6851	Ave		0.6962			0.1000	4.6		15.0			
Vinyl acetate	0.1667 0.2949	0.2279 0.2755	0.2334	0.2773	0.2735	Lin2	-0.118	0.2824							0.9980		0.9900
2-Chloro-1,3-butadiene	0.4683 0.7236	0.5244 0.6734	0.5529	0.6509	0.6781	Lin2	-0.119	0.6760							0.9950		0.9900
Hexane	0.5288 0.6646	0.6112 0.5768	0.6092	0.6607	0.6761	Ave		0.6182				8.6		15.0			
Isopropyl ether	0.8846 1.0995	1.0611 0.9441	1.0643	1.1326	1.1063	Ave		1.0418				8.8		15.0			
2-Butanone (MEK)	0.0120 0.0108	0.0119 0.0101	0.0127	0.0117	0.0101	Ave		0.0113				8.9		15.0			
Methacrylonitrile	0.0103 0.0151	0.0153 0.0146	0.0142	0.0154	0.0153	Ave		0.0143				12.6		15.0			
cis-1,2-Dichloroethene	0.3252 0.3191	0.3333 0.3029	0.3118	0.3193	0.3127	Ave		0.3178				3.1		15.0			
Ethyl acetate	0.0783 0.0998	0.0891 0.0990	0.0889	0.0988	0.0930	Ave		0.0924				8.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobromomethane	0.1091 0.0929	0.1113 0.0862	0.0976	0.0982	0.0929	Ave		0.0983				9.2		15.0			
Chloroform	0.5765 0.5402	0.5889 0.5024	0.5278	0.5644	0.5395	Ave		0.5485				5.5		15.0			
Tert-butyl ethyl ether	0.6677 0.9251	0.8472 0.8760	0.8255	0.9142	0.8854	Ave		0.8487				10.3		15.0			
Isobutyl alcohol	0.0060 0.0057	0.0071 0.0052	0.0063	0.0059	0.0057	Ave		0.0060				9.8		15.0			
2,2-Dichloropropane	0.5078 0.5297	0.5448 0.4891	0.5178	0.5251	0.5233	Ave		0.5197				3.4		15.0			
Tetrahydrofuran	0.0219 0.0237	0.0274 0.0242	0.0246	0.0231	0.0225	Ave		0.0239				7.5		15.0			
1,2-Dichloroethane	0.2988 0.3053	0.3249 0.2874	0.3003	0.3155	0.2958	Ave		0.3040				4.1		15.0			
1,1,1-Trichloroethane	0.5175 0.5366	0.5430 0.5065	0.4920	0.5229	0.5128	Ave		0.5187				3.4		15.0			
n-Butanol	0.0010 0.0015	0.0008 0.0016	0.0010	0.0012	0.0012	Lin	-0.049	0.0017							0.9970		0.9900
1,1-Dichloropropene	0.3331 0.4458	0.3605 0.4080	0.3582	0.4074	0.4270	Ave		0.3914				10.5		15.0			
Cyclohexane	0.3490 0.4844	0.4050 0.4399	0.3951	0.4558	0.4676	Ave		0.4281				11.1		15.0			
Carbon tetrachloride	0.4217 0.4805	0.4399 0.4454	0.4322	0.4574	0.4602	Ave		0.4482				4.4		15.0			
Benzene	1.3174 1.2573	1.3137 1.1193	1.2200	1.2624	1.2366	Ave		1.2467				5.4		15.0			
Tert-amyl methyl ether	0.3323 0.4978	0.4400 0.4797	0.4288	0.4890	0.4660	Ave		0.4476				12.7		15.0			
Isooctane	1.1347 1.3844	1.2920 1.2360	1.2173	1.2849	1.3449	Ave		1.2706				6.6		15.0			
Ethyl acrylate	0.2475 0.2640	0.2347 0.2580	0.2334	0.2540	0.2542	Ave		0.2494				4.7		15.0			
2-Nitropropane	0.1952 0.2437	0.2139 0.2125	0.2124	0.2389	0.2393	Ave		0.2223				8.3		15.0			
n-Heptane	0.3903 0.4874	0.4278 0.4249	0.4248	0.4778	0.4786	Ave		0.4445				8.3		15.0			
Dibromomethane	0.0963 0.0848	0.0946 0.0822	0.0872	0.0904	0.0822	Ave		0.0882				6.5		15.0			
1,2-Dichloropropane	0.3693 0.3373	0.3492 0.3083	0.3390	0.3379	0.3299	Ave		0.3387				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Trichloroethene	0.3320 0.3446	0.3379 0.3201	0.3370	0.3241	0.3321	Ave		0.3325				2.5		15.0			
Bromodichloromethane	0.2653 0.3133	0.3002 0.2966	0.2987	0.3200	0.3077	Ave		0.3003				5.8		15.0			
1,4-Dioxane	0.0009 0.0006	0.0009 0.0005	0.0008	0.0006	0.0006	Lin1	0.0056	0.0005							0.9960		0.9900
2-Chloroethyl vinyl ether	0.1184 0.2158	0.1246 0.2267	0.1380	0.1746	0.1874	Lin1	-0.185	0.2204							0.9950		0.9900
Methylcyclohexane	0.3602 0.5082	0.4219 0.4564	0.4283	0.4736	0.4846	Ave		0.4476				11.0		15.0			
Methyl methacrylate	0.0905 0.1143	0.1042 0.0995	0.0957	0.1118	0.1124	Ave		0.1040				8.8		15.0			
cis-1,3-Dichloropropene	0.8829 1.0698	0.9221 1.0111	0.8965	0.9493	1.0151	Ave		0.9638				7.2		15.0			
4-Methyl-2-pentanone (MIBK)	0.0540 0.0850	0.0700 0.0816	0.0675	0.0827	0.0790	Ave		0.0742				14.9		15.0			
trans-1,3-Dichloropropene	0.4263 0.6382	0.6044 0.6469	0.4890	0.5428	0.5802	Ave		0.5611				14.4		15.0			
1,1,2-Trichloroethane	0.3259 0.3825	0.4419 0.3544	0.3944	0.3741	0.3719	Ave		0.3779				9.5		15.0			
Ethyl methacrylate	0.2322 0.4577	0.2816 0.4538	0.2991	0.3758	0.4140	Lin1	-0.169	0.4524							0.9980		0.9900
Toluene	2.0148 2.4252	2.1670 2.1724	2.1680	2.3049	2.3932	Ave		2.2351				6.5		15.0			
1,3-Dichloropropane	0.6658 0.7225	0.7451 0.6579	0.7610	0.7428	0.7220	Ave		0.7167				5.6		15.0			
2-Hexanone	0.0777 0.1467	0.1023 0.1520	0.1114	0.1336	0.1269	Lin2	-0.068	0.1402							0.9940		0.9900
Dibromochloromethane	0.4023 0.4448	0.4416 0.4462	0.4033	0.4211	0.4231	Ave		0.4260				4.4		15.0			
n-Butyl acetate	0.2443 0.4513	0.2920 0.4652	0.2808	0.3633	0.3937	Lin1	-0.180	0.4551							0.9960		0.9900
1,2-Dibromoethane	0.2903 0.3244	0.3662 0.3226	0.3075	0.3201	0.3114	Ave		0.3203				7.3		15.0			
Tetrachloroethene	0.7587 0.7968	0.8324 0.7444	0.7212	0.7246	0.7663	Ave		0.7635				5.2		15.0			
1-Chlorohexane	0.8001 1.1559	0.8486 1.0221	0.9307	1.0186	1.1140	Ave		0.9843				13.4		15.0			
1,1,1,2-Tetrachloroethane	0.7145 0.7052	0.7554 0.6576	0.6775	0.6907	0.7081	Ave		0.7013				4.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobenzene	2.3161 2.1433	2.3365 1.9742	2.1852	2.1478	2.1125	Ave		2.1736			0.3000	5.7		15.0			
Ethylbenzene	1.1130 1.2980	1.1688 1.1870	1.0866	1.1485	1.2580	Ave		1.1800				6.4		15.0			
m-Xylene & p-Xylene	2.2619 3.0144	2.4734 2.7987	2.3919	2.7320	2.9444	Ave		2.6595				10.8		15.0			
Bromoform	0.2758 0.2347	0.2702 0.2389	0.2286	0.2292	0.2254	Ave		0.2433			0.1000	8.6		15.0			
Styrene	0.9499 1.9206	1.1724 1.9723	1.1822	1.4815	1.7047	Lin1	-0.816	1.9345							0.9960		0.9900
Cyclohexanone	0.0041 0.0068	0.0057 0.0080	0.0059	0.0059	0.0063	Lin1	-0.129	0.0075							0.9910		0.9900
1,1,2,2-Tetrachloroethane	0.5028 0.4353	0.5282 0.3917	0.4470	0.4702	0.4680	Ave		0.4633			0.3000	9.7		15.0			
o-Xylene	1.0519 1.4854	1.2471 1.3904	1.2135	1.4145	1.4511	Ave		1.3220				11.8		15.0			
trans-1,4-Dichloro-2-butene	0.0695 0.1053	0.0777 0.1075	0.0856	0.0926	0.0850	Lin2	-0.016	0.0979							0.9910		0.9900
1,2,3-Trichloropropane	0.1455 0.1228	0.1626 0.1205	0.1519	0.1367	0.1269	Ave		0.1381				11.5		15.0			
Isopropylbenzene	3.3849 4.7344	3.8339 3.9925	3.7359	4.4136	4.8041	Ave		4.1285				13.0		15.0			
Bromobenzene	0.7921 0.8711	0.8839 0.8152	0.7929	0.8248	0.8446	Ave		0.8321				4.3		15.0			
N-Propylbenzene	0.8797 1.2804	0.9828 1.1136	0.9324	1.1591	1.2775	Ave		1.0893				14.9		15.0			
2-Chlorotoluene	0.9865 1.0613	0.9706 0.9554	0.8646	1.0173	1.0785	Ave		0.9906				7.3		15.0			
4-Chlorotoluene	2.7285 3.2608	2.8608 2.9046	2.6709	3.2017	3.2303	Ave		2.9796				8.3		15.0			
1,3,5-Trimethylbenzene	2.8069 3.8731	3.1914 3.4050	3.1714	3.6551	3.8641	Ave		3.4238				11.6		15.0			
tert-Butylbenzene	2.5925 3.1514	2.8035 2.8301	2.5238	2.9367	3.1344	Ave		2.8532				8.5		15.0			
1,2,4-Trimethylbenzene	2.7027 3.9005	3.2116 3.5113	3.1151	3.6787	3.8661	Ave		3.4266				12.8		15.0			
sec-Butylbenzene	3.8908 4.7068	4.2091 4.1646	4.0328	4.4863	4.7498	Ave		4.3200				7.7		15.0			
Benzyl chloride	0.4797 0.7389	0.5957 0.7640	0.5612	0.6404	0.6641	Lin2	-0.118	0.7003							0.9930		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.7301 2.0080	2.0187 1.8756	1.8266	1.9494	1.9683	Ave		1.9110				5.5		15.0			
1,4-Dichlorobenzene	2.1111 2.0425	2.1639 1.8199	1.8941	2.0097	2.0333	Ave		2.0107				5.9		15.0			
4-Isopropyltoluene	3.8253 4.1017	4.0306 3.6453	3.6290	3.8529	4.0827	Ave		3.8811				5.1		15.0			
1,2,3-Trimethylbenzene	3.2157 3.7729	3.3671 3.4527	3.0572	3.5446	3.7356	Ave		3.4494				7.6		15.0			
1,2-Dichlorobenzene	1.7023 1.6299	1.6690 1.5067	1.5202	1.5454	1.5863	Ave		1.5943				4.7		15.0			
n-Butylbenzene	2.7305 3.5088	2.6742 3.1769	2.6418	3.1124	3.4912	Ave		3.0480				12.2		15.0			
1,2-Dibromo-3-Chloropropane	0.0702 0.0559	0.0631 0.0582	0.0489	0.0560	0.0551	Ave		0.0582				11.6		15.0			
1,3,5-Trichlorobenzene	1.2532 1.2183	1.2814 1.1181	1.1048	1.1821	1.2254	Ave		1.1976				5.5		15.0			
1,2,4-Trichlorobenzene	0.6744 0.7536	0.6187 0.7219	0.6022	0.7106	0.7067	Ave		0.6840				8.1		15.0			
Naphthalene	0.4251 0.8808	0.6636 0.9125	0.6638	0.7565	0.8247	Lin2	-0.219	0.8535							0.9950		0.9900
Hexachlorobutadiene	0.3677 0.2322	0.2668 0.2017	0.2497	0.2157	0.2354	Lin2	0.0731	0.2123							0.9940		0.9900
1,2,3-Trichlorobenzene	0.4753 0.4785	0.4938 0.4400	0.4566	0.4734	0.4689	Ave		0.4695				3.6		15.0			
Dibromofluoromethane	0.2056 0.2244	0.2239 0.2143	0.2310	0.2277	0.2245	Ave		0.2216				3.9		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2230 0.1977	0.2177 0.1869	0.2056	0.2002	0.1889	Ave		0.2029				6.7		15.0			
Toluene-d8 (Surr)	2.5377 2.8465	2.4907 2.6176	2.3380	2.5505	2.8050	Ave		2.5980				6.8		15.0			
4-Bromofluorobenzene	1.2725 1.0631	1.0682 0.9520	1.0222	1.0336	1.0982	Ave		1.0728				9.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-184699/2	A08101.d
Level 2	IC 600-184699/3	A08102.d
Level 3	IC 600-184699/4	A08103.d
Level 4	IC 600-184699/5	A08104.d
Level 5	ICIS 600-184699/6	A08105.d
Level 6	IC 600-184699/7	A08106.d
Level 7	IC 600-184699/8	A08107.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	1011 46643	2343 118830	4967	11516	24711	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloromethane	FB	Ave	1924 63559	3254 192958	5810	14380	31057	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	2743 121466	5897 329396	12909	31140	63395	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Butadiene	FB	Ave	1684 69201	2989 201242	7266	17427	37611	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromomethane	FB	Lin	549 19387	621 60015	1073	3118	8000	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroethane	FB	Lin2	3051 74683	4663 205164	7862	18995	37372	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	7009 257110	14246 610740	23156	60752	121943	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrolein	FB	Ave	1553 62901	2735 171638	5221	14524	27971	2.50 100	5.00 250	10.0	25.0	50.0
Acetonitrile	FB	Ave	1518 64283	2846 160278	6369	15868	29499	5.00 200	10.0 500	20.0	50.0	100
Trichlorofluoromethane	FB	Ave	5864 227547	11948 573428	24934	60422	124832	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl alcohol	FB	Lin1	740 23046	1543 61534	2539	5528	10904	5.00 200	10.0 500	20.0	50.0	100
Acetone	FB	Lin1	1920 28157	2243 73769	3109	7483	14009	1.00 40.0	2.00 100	4.00	10.0	20.0
Ethyl ether	FB	Ave	2363 132135	5833 347615	10619	31022	61728	0.500 20.0	1.00 50.0	2.00	5.00	10.0
t-Butanol	FB	Ave	2363 132135	5833 347615	10619	31022	61728	5.00 200	10.0 500	20.0	50.0	100
1,1-Dichloroethene	FB	Ave	3875 178301	8439 420057	14869	40732	85163	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acrylonitrile	FB	Ave	4322 232735	10863 595868	21462	57429	110586	5.00 200	10.0 500	20.0	50.0	100
Iodomethane	FB	Lin	1513 90759	1884 305508	3476	12010	32246	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methylene Chloride	FB	Lin2	7675 166610	12966 403337	19782	45022	83668	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	6003 249505	12672 631112	22684	64029	121105	2.50 100	5.00 250	10.0	25.0	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	4221 170305	8432 408394	15264	40915	81308	0.500 20.0	1.00 50.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	2406 106605	4551 237561	8589	24383	50793	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	14186 538808	26626 1287868	48144	125525	259434	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	4858 210329	9683 521232	17274	44417	96906	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	5181 301833	13245 775408	24647	68937	140271	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Propionitrile	FB	Lin2	1223 89332	3817 226495	7699	21105	42842	5.00 200	10.0 500	20.0	50.0	100
1,1-Dichloroethane	FB	Ave	11813 461487	22477 1131843	41492	112567	222673	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl acetate	FB	Lin2	5304 391534	14304 962217	28913	87097	177786	1.00 40.0	2.00 100	4.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Lin2	7452 480420	16460 1176135	34240	102213	220399	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexane	FB	Ave	8415 441238	19185 1007410	37730	103747	219747	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl ether	FB	Ave	14076 730010	33304 1648943	65911	177858	359575	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	383 14284	744 35304	1567	3683	6555	1.00 40.0	2.00 100	4.00	10.0	20.0
Methacrylonitrile	FB	Ave	1644 99978	4793 254241	8815	24195	49683	5.00 200	10.0 500	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Ave	5175 211837	10462 528992	19311	50148	101646	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acetate	FB	Ave	2491 132466	5591 345971	11009	31017	60451	1.00 40.0	2.00 100	4.00	10.0	20.0
Chlorobromomethane	FB	Ave	1736 61688	3494 150536	6044	15424	30209	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroform	FB	Ave	9173 358671	18485 877419	32688	88633	175335	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Tert-butyl ethyl ether	FB	Ave	10625 614189	26591 1529911	51123	143559	287784	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isobutyl alcohol	FB	Ave	2374 95184	5568 228498	9789	23093	46458	12.5 500	25.0 1250	50.0	125	250
2,2-Dichloropropane	FB	Ave	8081 351669	17099 854282	32070	82456	170065	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	696 31494	1720 84437	3043	7263	14619	1.00 40.0	2.00 100	4.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	4754 202720	10197 502001	18595	49545	96139	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	8234 356304	17042 884662	30467	82111	166652	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butanol	FB	Lin	410 24210	594 71655	1603	4788	9763	12.5 500	25.0 1250	50.0	125	250
1,1-Dichloropropene	FB	Ave	5300 295962	11315 712529	22183	63976	138782	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	5553 321620	12712 768252	24471	71575	151982	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	6711 319020	13808 777923	26767	71831	149562	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzene	FB	Ave	20964 834785	41233 1954968	75552	198237	401910	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tert-amyl methyl ether	FB	Ave	5288 330496	13810 837841	26556	76785	151448	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isooctane	FB	Ave	18056 919149	40552 2158659	75384	201778	437114	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acrylate	FB	Ave	3938 175309	7367 450681	14457	39891	82620	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Nitropropane	FB	Ave	6211 323579	13426 742141	26310	75038	155552	1.00 40.0	2.00 100	4.00	10.0	20.0
n-Heptane	FB	Ave	6211 323579	13426 742141	26310	75038	155552	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	1532 56321	2970 143506	5399	14202	26708	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	5876 223928	10959 538467	20992	53067	107222	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	5283 228808	10605 559006	20868	50887	107929	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	4222 208009	9422 518105	18499	50254	99997	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dioxane	FB	Lin1	275 7585	582 19069	1022	1924	3761	10.0 400	20.0 1000	40.0	100	200

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
2-Chloroethyl vinyl ether	CBNZ d5	Lin1	1035 86536	2256 237370	5034	16931	36436	1.00 40.0	2.00 100	4.00	10.0	20.0
Methylcyclohexane	FB	Ave	5731 337392	13243 797180	26526	74367	157508	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl methacrylate	FB	Ave	2879 151734	6538 347525	11858	35118	73037	1.00 40.0	2.00 100	4.00	10.0	20.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	3860 214479	8347 529430	16347	46036	98682	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	1718 112883	4394 285077	8357	25958	51334	1.00 40.0	2.00 100	4.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	1864 127945	5471 338728	8917	26324	56401	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Ave	1425 76691	4000 185576	7192	18140	36155	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Lin1	1015 91763	2549 237622	5454	18222	40250	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene	CBNZ d5	Ave	8809 486200	19615 1137535	39532	111772	232658	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	2911 144850	6744 344520	13876	36019	70187	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Hexanone	CBNZ d5	Lin2	679 58827	1852 159180	4064	12956	24664	1.00 40.0	2.00 100	4.00	10.0	20.0
Dibromochloromethane	CBNZ d5	Ave	1759 89171	3997 233621	7354	20419	41134	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butyl acetate	CBNZ d5	Lin1	1068 90477	2643 243616	5121	17619	38271	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromoethane	CBNZ d5	Ave	1269 65037	3315 168935	5607	15521	30268	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	3317 159739	7535 389790	13150	35141	74498	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Ave	3498 231735	7681 535215	16971	49394	108302	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	3124 141387	6838 344353	12353	33493	68842	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chlorobenzene	CBNZ d5	Ave	10126 429699	21149 1033780	39845	104153	205367	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	4866 260228	10580 621555	19814	55693	122301	0.500 20.0	1.00 50.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	9889 604340	22388 1465502	43615	132487	286243	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromoform	DCBd 4	Ave	813 37315	1738 111260	3088	8185	16288	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Styrene	CBNZ d5	Lin1	4153 385036	10612 1032754	21557	71845	165718	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexanone	CBNZ d5	Lin1	906 68507	2584 209417	5388	14258	30506	25.0 1000	50.0 2500	100	250	500
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	1482 69204	3397 182424	6039	16793	33822	0.500 20.0	1.00 50.0	2.00	5.00	10.0
o-Xylene	CBNZ d5	Ave	4599 297787	11288 728042	22128	68597	141070	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin2	205 16734	500 50047	1157	3306	6143	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Ave	429 19531	1046 56113	2052	4881	9170	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropylbenzene	DCBd 4	Ave	9978 752706	24657 1859408	50470	157617	347169	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	2335 138490	5685 379659	10712	29454	61036	0.500 20.0	1.00 50.0	2.00	5.00	10.0
N-Propylbenzene	DCBd 4	Ave	2593 203568	6321 518637	12596	41392	92319	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Ave	2908 168737	6242 444945	11681	36329	77936	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Ave	8043 518424	18399 1352732	36083	114337	233437	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	8274 615773	20525 1585791	42844	130531	279240	0.500 20.0	1.00 50.0	2.00	5.00	10.0
tert-Butylbenzene	DCBd 4	Ave	7642 501027	18030 1318048	34096	104875	226510	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	7967 620126	20655 1635331	42084	131371	279387	0.500 20.0	1.00 50.0	2.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	11469 748325	27070 1939562	54482	160212	343249	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzyl chloride	DCBd 4	Lin2	1414 117468	3831 355832	7581	22870	47994	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	5100 319247	12983 873533	24677	69615	142237	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCBd 4	Ave	6223 324738	13917 847577	25589	71769	146937	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	11276 652119	25922 1697704	49027	137595	295039	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	9479 599838	21655 1607997	41302	126584	269955	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCBd 4	Ave	5018 259133	10734 701693	20537	55190	114636	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130213-1 Analy Batch No.: 184699

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2016 09:46 Calibration End Date: 03/21/2016 12:18 Calibration ID: 8787

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	8049 557854	17199 1479591	35690	111150	252292	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	207 8890	406 27101	660	2000	3983	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	3694 193699	8241 520725	14926	42216	88555	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	1988 119807	3979 336218	8136	25378	51070	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Naphthalene	DCBd 4	Lin2	1253 140032	4268 424986	8967	27016	59597	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexachlorobutadiene	DCBd 4	Lin2	1084 36922	1716 93919	3373	7703	17014	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	1401 76068	3176 204905	6168	16907	33883	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromofluoromethane	FB	Ave	3271 149013	7029 374319	14303	35754	72967	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	3549 131244	6834 326457	12735	31431	61380	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	11095 570663	22545 1370673	42632	123684	272690	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Bromofluorobenzene	DCBd 4	Ave	3751 169026	6870 443360	13810	36911	79359	0.500 20.0	1.00 50.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab Sample ID: CCVIS 600-188079/2 Calibration Date: 05/08/2016 10:14

Instrument ID: CHVOAMS01 Calib Start Date: 01/22/2016 11:43

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 01/22/2016 16:06

Lab File ID: C12801.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2063	0.1773		8.59	10.0	-14.1	35.0
Chloromethane	Ave	0.2670	0.5256	0.1000	19.7	10.0	96.9*	35.0
Vinyl chloride	Ave	0.1865	0.1996		10.7	10.0	7.0	20.0
Butadiene	Ave	0.1746	0.1862		10.7	10.0	6.6	35.0
Bromomethane	Lin1		0.3457		17.5	10.0	75.1*	35.0
Chloroethane	Ave	0.2099	0.1524		7.26	10.0	-27.4	35.0
Dichlorofluoromethane	Ave	0.5170	0.4985		9.64	10.0	-3.6	35.0
Acrolein	Ave	0.0159	0.0131		41.2	50.0	-17.7	50.0
Acetonitrile	Lin1		0.0141		86.2	100	-13.8	50.0
Trichlorofluoromethane	Ave	0.4038	0.5279		13.1	10.0	30.7	35.0
Isopropyl alcohol	Lin2		0.0059		87.6	100	-12.4	50.0
Acetone	Lin1		0.0325		19.9	20.0	-0.6	35.0
Ethyl ether	Ave	0.1660	0.1298		7.82	10.0	-21.8	35.0
t-Butanol	Ave	0.0117	0.0115		98.1	100	-1.9	35.0
1,1-Dichloroethene	Ave	0.2722	0.2804		10.3	10.0	3.0	20.0
Acrylonitrile	Ave	0.0350	0.0299		85.4	100	-14.6	50.0
Iodomethane	Ave	0.3787	0.7934		21.0	10.0	109.5*	35.0
Methylene Chloride	Lin1		0.2488		7.03	10.0	-29.7	50.0
Methyl acetate	Ave	0.0995	0.0890		44.7	50.0	-10.6	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2124	0.1657		7.80	10.0	-22.0	35.0
3-Chloro-1-propene	Ave	0.1648	0.1188		7.21	10.0	-27.9	35.0
Carbon disulfide	Ave	0.9253	0.7312		7.90	10.0	-21.0	35.0
trans-1,2-Dichloroethene	Ave	0.3045	0.2535		8.33	10.0	-16.7	35.0
Methyl tert-butyl ether	Ave	0.5673	0.4803		8.47	10.0	-15.3	35.0
Propionitrile	Ave	0.0176	0.0156		88.5	100	-11.5	35.0
1,1-Dichloroethane	Ave	0.5302	0.4676	0.1000	8.82	10.0	-11.8	35.0
Vinyl acetate	Ave	0.2913	0.2742		18.8	20.0	-5.9	50.0
2-Chloro-1,3-butadiene	Ave	0.4496	0.4435		9.87	10.0	-1.3	35.0
Hexane	Ave	0.4265	0.3598		8.44	10.0	-15.6	35.0
Isopropyl ether	Ave	0.8355	0.7679		9.19	10.0	-8.1	35.0
2-Butanone (MEK)	Ave	0.0154	0.0145		18.8	20.0	-6.0	50.0
Methacrylonitrile	Ave	0.0215	0.0170		79.1	100	-20.9	35.0
cis-1,2-Dichloroethene	Ave	0.3387	0.2815		8.31	10.0	-16.9	35.0
Ethyl acetate	Ave	0.0874	0.0428		9.80	20.0	-51.0*	35.0
Chlorobromomethane	Ave	0.1230	0.0930		7.56	10.0	-24.4	35.0
Chloroform	Ave	0.5045	0.4963		9.84	10.0	-1.6	20.0
Tert-butyl ethyl ether	Ave	0.7610	0.6894		9.06	10.0	-9.4	35.0
Isobutyl alcohol	Ave	0.0079	0.0046		147	250	-41.2	50.0
2,2-Dichloropropane	Ave	0.4650	0.4566		9.82	10.0	-1.8	35.0
Tetrahydrofuran	Lin2		0.0277		15.5	20.0	-22.5	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab Sample ID: CCVIS 600-188079/2 Calibration Date: 05/08/2016 10:14

Instrument ID: CHVOAMS01 Calib Start Date: 01/22/2016 11:43

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 01/22/2016 16:06

Lab File ID: C12801.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane	Ave	0.2661	0.2634		9.90	10.0	-1.0	35.0
1,1,1-Trichloroethane	Ave	0.4460	0.4447		9.97	10.0	-0.3	35.0
1,1-Dichloropropene	Ave	0.4388	0.3995		9.11	10.0	-9.0	35.0
Cyclohexane	Ave	0.5066	0.3999		7.90	10.0	-21.1	35.0
Carbon tetrachloride	Ave	0.3606	0.3555		9.86	10.0	-1.4	35.0
Benzene	Ave	1.294	1.064		8.22	10.0	-17.8	35.0
Tert-amyl methyl ether	Ave	0.6914	0.5804		8.40	10.0	-16.1	35.0
Isooctane	Ave	1.038	0.8525		8.22	10.0	-17.8	35.0
Ethyl acrylate	Ave	0.2669	0.2078		7.79	10.0	-22.1	35.0
n-Heptane	Ave	0.4053	0.3600		8.88	10.0	-11.2	35.0
Dibromomethane	Ave	0.1280	0.1091		8.52	10.0	-14.8	35.0
1,2-Dichloropropane	Ave	0.2964	0.2903		9.79	10.0	-2.1	20.0
2-Nitropropane	Ave	0.0421	0.0377		17.9	20.0	-10.5	35.0
Trichloroethene	Ave	0.3363	0.2820		8.38	10.0	-16.2	35.0
Bromodichloromethane	Ave	0.3789	0.3659		9.66	10.0	-3.4	35.0
Methyl methacrylate	Ave	0.1486	0.1252		16.9	20.0	-15.7	50.0
1,4-Dioxane	Ave	0.0010	0.0009		177	200	-11.5	50.0
2-Chloroethyl vinyl ether	Lin2		0.1028		11.4	20.0	-43.1*	35.0
Methylcyclohexane	Ave	0.5932	0.4780		8.06	10.0	-19.4	35.0
cis-1,3-Dichloropropene	Ave	0.8895	0.7930		8.92	10.0	-10.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1282	0.1151		18.0	20.0	-10.2	50.0
trans-1,3-Dichloropropene	Ave	0.6891	0.6251		9.07	10.0	-9.3	35.0
1,1,2-Trichloroethane	Ave	0.3699	0.3312		8.96	10.0	-10.4	35.0
Ethyl methacrylate	Ave	0.4582	0.3947		8.61	10.0	-13.9	50.0
Toluene	Ave	1.612	1.481		9.19	10.0	-8.1	20.0
1,3-Dichloropropane	Ave	0.6798	0.6365		9.36	10.0	-6.4	35.0
2-Hexanone	Ave	0.1757	0.1564		17.8	20.0	-11.0	50.0
Dibromochloromethane	Ave	0.4405	0.4054		9.20	10.0	-8.0	35.0
n-Butyl acetate	Qua		0.2113		4.81	10.0	-51.9*	35.0
1,2-Dibromoethane	Ave	0.3559	0.3206		9.01	10.0	-9.9	35.0
Tetrachloroethene	Ave	0.4860	0.4456		9.17	10.0	-8.3	35.0
1-Chlorohexane	Ave	0.6483	0.6250		9.64	10.0	-3.6	35.0
1,1,1,2-Tetrachloroethane	Ave	0.5743	0.5168		9.00	10.0	-10.0	35.0
Chlorobenzene	Ave	1.897	1.655	0.3000	8.73	10.0	-12.7	35.0
Ethylbenzene	Ave	1.034	0.9160		8.86	10.0	-11.4	20.0
m-Xylene & p-Xylene	Ave	2.551	2.400		9.41	10.0	-5.9	35.0
Bromoform	Ave	0.2092	0.2341	0.1000	11.2	10.0	11.9	35.0
Styrene	Ave	2.075	1.734		8.36	10.0	-16.4	35.0
o-Xylene	Ave	1.303	1.110		8.52	10.0	-14.8	35.0
1,1,2,2-Tetrachloroethane	Ave	0.4332	0.3495	0.3000	8.07	10.0	-19.3	35.0
1,2,3-Trichloropropane	Ave	0.1132	0.1334		11.8	10.0	17.8	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab Sample ID: CCVIS 600-188079/2 Calibration Date: 05/08/2016 10:14

Instrument ID: CHVOAMS01 Calib Start Date: 01/22/2016 11:43

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 01/22/2016 16:06

Lab File ID: C12801.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
trans-1,4-Dichloro-2-butene	Ave	0.0855	0.0846		9.89	10.0	-1.1	50.0
Isopropylbenzene	Ave	3.113	3.619		11.6	10.0	16.3	35.0
Bromobenzene	Ave	0.7125	0.7786		10.9	10.0	9.3	35.0
N-Propylbenzene	Ave	0.9306	0.9832		10.6	10.0	5.7	35.0
2-Chlorotoluene	Ave	0.8053	0.8507		10.6	10.0	5.6	35.0
4-Chlorotoluene	Ave	2.468	2.901		11.8	10.0	17.5	35.0
1,3,5-Trimethylbenzene	Ave	2.811	3.031		10.8	10.0	7.9	35.0
tert-Butylbenzene	Ave	2.373	2.429		10.2	10.0	2.4	35.0
1,2,4-Trimethylbenzene	Ave	2.932	3.130		10.7	10.0	6.8	35.0
sec-Butylbenzene	Ave	3.585	3.707		10.3	10.0	3.4	35.0
Benzyl chloride	Ave	0.9482	0.8081		8.52	10.0	-14.8	35.0
1,3-Dichlorobenzene	Ave	1.460	1.511		10.4	10.0	3.5	35.0
1,4-Dichlorobenzene	Ave	1.444	1.527		10.6	10.0	5.7	35.0
4-Isopropyltoluene	Ave	3.086	3.137		10.2	10.0	1.7	35.0
1,2,3-Trimethylbenzene	Ave	3.162	3.146		9.95	10.0	-0.5	35.0
1,2-Dichlorobenzene	Ave	1.245	1.244		9.99	10.0	-0.1	35.0
n-Butylbenzene	Ave	2.876	2.922		10.2	10.0	1.6	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.0626	0.0740		11.8	10.0	18.1	35.0
1,3,5-Trichlorobenzene	Ave	1.049	0.7518		7.17	10.0	-28.3	35.0
1,2,4-Trichlorobenzene	Ave	0.6177	0.5340		8.64	10.0	-13.6	35.0
Naphthalene	Ave	0.8353	0.5680		6.80	10.0	-32.0	35.0
Hexachlorobutadiene	Ave	0.1643	0.1424		8.67	10.0	-13.3	35.0
1,2,3-Trichlorobenzene	Ave	0.3387	0.1697		5.01	10.0	-49.9*	35.0
Dibromofluoromethane	Ave	0.2804	0.2525		9.01	10.0	-9.9	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2351	0.2441		10.4	10.0	3.8	35.0
Toluene-d8 (Surr)	Ave	2.386	2.151		9.02	10.0	-9.8	35.0
4-Bromofluorobenzene	Lin2		1.124		11.9	10.0	18.8	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab Sample ID: CCVIS 600-187679/2 Calibration Date: 05/03/2016 11:48

Instrument ID: CHVOAMS07 Calib Start Date: 03/21/2016 09:46

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 03/21/2016 12:18

Lab File ID: A12401b.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.0723	0.0675		9.33	10.0	-6.7	35.0
Chloromethane	Ave	0.1017	0.1264	0.1000	12.4	10.0	24.3	35.0
Vinyl chloride	Ave	0.1905	0.1721		9.03	10.0	-9.7	20.0
Butadiene	Ave	0.1092	0.1381		12.7	10.0	26.5	35.0
Bromomethane	Lin		0.0273		9.30	10.0	-7.0	35.0
Chloroethane	Lin2		0.0694		5.86	10.0	-41.4*	35.0
Dichlorofluoromethane	Ave	0.3953	0.2969		7.51	10.0	-24.9	35.0
Acetonitrile	Ave	0.0096	0.0093		96.9	100	-3.1	50.0
Acrolein	Ave	0.0183	0.0131		35.7	50.0	-28.5	50.0
Trichlorofluoromethane	Ave	0.3702	0.3201		8.65	10.0	-13.5	35.0
Isopropyl alcohol	Lin1		0.0050		143	100	43.3	50.0
Acetone	Lin1		0.0292		26.9	20.0	34.3	35.0
Ethyl ether	Ave	0.1845	0.1410		7.65	10.0	-23.6	35.0
t-Butanol	Ave	0.0184	0.0141		76.5	100	-23.6	35.0
1,1-Dichloroethene	Ave	0.2547	0.2357		9.25	10.0	-7.5	20.0
Acrylonitrile	Ave	0.0337	0.0303		89.8	100	-10.2	50.0
Iodomethane	Lin		0.1226		9.02	10.0	-9.8	35.0
Methylene Chloride	Lin2		0.2013		7.53	10.0	-24.7	50.0
Methyl acetate	Ave	0.0761	0.0850		55.8	50.0	11.6	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2545	0.3500		13.8	10.0	37.5*	35.0
3-Chloro-1-propene	Ave	0.1490	0.1155		7.75	10.0	-22.5	35.0
Carbon disulfide	Ave	0.8091	0.5862		7.25	10.0	-27.6	35.0
cis-1,2-Dichloroethene	Ave	0.3178	0.2458		8.24	10.0	-22.7	35.0
Methyl tert-butyl ether	Ave	0.4164	0.3389		8.14	10.0	-18.6	35.0
Propionitrile	Lin2		0.0117		87.8	100	-12.2	35.0
1,1-Dichloroethane	Ave	0.6962	0.7284	0.1000	10.5	10.0	4.6	35.0
Vinyl acetate	Lin2		0.3178		22.9	20.0	14.6	50.0
2-Chloro-1,3-butadiene	Lin2		1.125		16.8	10.0	68.2*	35.0
Hexane	Ave	0.6182	0.6999		11.3	10.0	13.2	35.0
Isopropyl ether	Ave	1.042	1.308		12.6	10.0	25.6	35.0
2-Butanone (MEK)	Ave	0.0113	0.0103		18.2	20.0	-8.9	50.0
Methacrylonitrile	Ave	0.0143	0.0095		66.5	100	-33.5	35.0
trans-1,2-Dichloroethene	Ave	0.2984	0.2695		8.49	10.0	-9.7	35.0
Chlorobromomethane	Ave	0.0983	0.0920		9.36	10.0	-6.4	35.0
Chloroform	Ave	0.5485	0.5959		10.9	10.0	8.6	20.0
Tert-butyl ethyl ether	Ave	0.8487	0.8988		10.6	10.0	5.9	35.0
Ethyl acetate	Ave	0.0924	0.1146		24.8	20.0	24.1	35.0
Isobutyl alcohol	Ave	0.0060	0.0092		383	250	53.0*	50.0
2,2-Dichloropropane	Ave	0.5197	0.7007		13.5	10.0	34.8	35.0
Tetrahydrofuran	Ave	0.0239	0.0204		17.1	20.0	-14.8	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab Sample ID: CCVIS 600-187679/2 Calibration Date: 05/03/2016 11:48

Instrument ID: CHVOAMS07 Calib Start Date: 03/21/2016 09:46

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 03/21/2016 12:18

Lab File ID: A12401b.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane	Ave	0.3040	0.4636		15.3	10.0	52.5*	35.0
1,1,1-Trichloroethane	Ave	0.5187	0.7541		14.5	10.0	45.4*	35.0
1,1-Dichloropropene	Ave	0.3914	0.4132		10.6	10.0	5.6	35.0
Cyclohexane	Ave	0.4281	0.4002		9.35	10.0	-6.5	35.0
Carbon tetrachloride	Ave	0.4482	0.8042		17.9	10.0	79.4*	35.0
Benzene	Ave	1.247	0.9673		7.76	10.0	-22.4	35.0
Tert-amyl methyl ether	Ave	0.4476	0.3703		8.27	10.0	-17.3	35.0
Isooctane	Ave	1.271	1.519		12.0	10.0	19.6	35.0
Ethyl acrylate	Ave	0.2494	0.2961		11.9	10.0	18.7	35.0
2-Nitropropane	Ave	0.2223	0.3692		33.2	20.0	66.1*	35.0
n-Heptane	Ave	0.4445	0.7383		16.6	10.0	66.1*	35.0
Dibromomethane	Ave	0.0882	0.0891		10.1	10.0	1.0	35.0
1,2-Dichloropropane	Ave	0.3387	0.3140		9.27	10.0	-7.3	20.0
Trichloroethene	Ave	0.3325	0.3454		10.4	10.0	3.9	35.0
Bromodichloromethane	Ave	0.3003	0.3654		12.2	10.0	21.7	35.0
Methyl methacrylate	Ave	0.1040	0.1330		25.6	20.0	27.8	50.0
1,4-Dioxane	Lin1		0.0006		206	200	3.2	50.0
2-Chloroethyl vinyl ether	Lin1		0.1772		16.9	20.0	-15.4	35.0
Methylcyclohexane	Ave	0.4476	0.4231		9.45	10.0	-5.5	35.0
cis-1,3-Dichloropropene	Ave	0.9638	0.7860		8.16	10.0	-18.4	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0742	0.0978		26.4	20.0	31.8	50.0
trans-1,3-Dichloropropene	Ave	0.5611	0.5101		9.09	10.0	-9.1	35.0
1,1,2-Trichloroethane	Ave	0.3779	0.3507		9.28	10.0	-7.2	35.0
Ethyl methacrylate	Lin1		0.2873		6.72	10.0	-32.8	50.0
Toluene	Ave	2.235	1.920		8.59	10.0	-14.1	20.0
1,3-Dichloropropane	Ave	0.7167	0.5699		7.95	10.0	-20.5	35.0
2-Hexanone	Lin2		0.1453		21.2	20.0	6.1	50.0
Dibromochloromethane	Ave	0.4260	0.4852		11.4	10.0	13.9	35.0
n-Butyl acetate	Lin1		0.3715		8.56	10.0	-14.4	35.0
1,2-Dibromoethane	Ave	0.3203	0.2496		7.79	10.0	-22.1	35.0
Tetrachloroethene	Ave	0.7635	0.7442		9.75	10.0	-2.5	35.0
1-Chlorohexane	Ave	0.9843	1.424		14.5	10.0	44.6*	35.0
1,1,1,2-Tetrachloroethane	Ave	0.7013	0.7846		11.2	10.0	11.9	35.0
Chlorobenzene	Ave	2.174	1.814	0.3000	8.35	10.0	-16.5	35.0
Ethylbenzene	Ave	1.180	1.087		9.22	10.0	-7.8	20.0
m-Xylene & p-Xylene	Ave	2.660	2.774		10.4	10.0	4.3	35.0
Bromoform	Ave	0.2433	0.2509	0.1000	10.3	10.0	3.1	35.0
Styrene	Lin1		1.433		7.83	10.0	-21.7	35.0
Cyclohexanone	Lin1		0.0097		659	500	31.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.4633	0.3756	0.3000	8.11	10.0	-18.9	35.0
o-Xylene	Ave	1.322	1.269		9.60	10.0	-4.0	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Lab Sample ID: CCVIS 600-187679/2 Calibration Date: 05/03/2016 11:48

Instrument ID: CHVOAMS07 Calib Start Date: 03/21/2016 09:46

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 03/21/2016 12:18

Lab File ID: A12401b.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
trans-1,4-Dichloro-2-butene	Lin2		0.1295		13.4	10.0	33.9	50.0
1,2,3-Trichloropropane	Ave	0.1381	0.1238		8.97	10.0	-10.3	35.0
Isopropylbenzene	Ave	4.128	4.270		10.3	10.0	3.4	35.0
Bromobenzene	Ave	0.8321	0.8073		9.70	10.0	-3.0	35.0
N-Propylbenzene	Ave	1.089	1.088		9.98	10.0	-0.2	35.0
2-Chlorotoluene	Ave	0.9906	0.9600		9.69	10.0	-3.1	35.0
4-Chlorotoluene	Ave	2.980	3.165		10.6	10.0	6.2	35.0
1,3,5-Trimethylbenzene	Ave	3.424	3.929		11.5	10.0	14.8	35.0
tert-Butylbenzene	Ave	2.853	3.156		11.1	10.0	10.6	35.0
1,2,4-Trimethylbenzene	Ave	3.427	3.680		10.7	10.0	7.4	35.0
sec-Butylbenzene	Ave	4.320	4.486		10.4	10.0	3.8	35.0
Benzyl chloride	Lin2		0.7244		10.5	10.0	5.1	35.0
1,3-Dichlorobenzene	Ave	1.911	1.926		10.1	10.0	0.8	35.0
1,4-Dichlorobenzene	Ave	2.011	1.924		9.57	10.0	-4.3	35.0
4-Isopropyltoluene	Ave	3.881	4.416		11.4	10.0	13.8	35.0
1,2,3-Trimethylbenzene	Ave	3.449	3.482		10.1	10.0	0.9	35.0
1,2-Dichlorobenzene	Ave	1.594	1.456		9.13	10.0	-8.7	35.0
n-Butylbenzene	Ave	3.048	3.420		11.2	10.0	12.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.0582	0.0542		9.31	10.0	-6.9	35.0
1,3,5-Trichlorobenzene	Ave	1.198	1.228		10.3	10.0	2.6	35.0
1,2,4-Trichlorobenzene	Ave	0.6840	0.6396		9.35	10.0	-6.5	35.0
Naphthalene	Lin2		0.5405		6.59	10.0	-34.1	35.0
Hexachlorobutadiene	Lin2		0.3662		16.9	10.0	69.0*	35.0
1,2,3-Trichlorobenzene	Ave	0.4695	0.3802		8.10	10.0	-19.0	35.0
Dibromofluoromethane	Ave	0.2216	0.2514		11.3	10.0	13.4	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2029	0.2687		13.2	10.0	32.4	35.0
Toluene-d8 (Surr)	Ave	2.598	2.151		8.28	10.0	-17.2	35.0
4-Bromofluorobenzene	Ave	1.073	1.036		9.66	10.0	-3.4	35.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-187679/9

Matrix: Water | Lab File ID: A12408.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 13:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		50-134
460-00-4	4-Bromofluorobenzene	93		67-139
1868-53-7	Dibromofluoromethane	102		62-130
2037-26-5	Toluene-d8 (Surr)	85		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-188079/9

Matrix: Water | Lab File ID: C12808.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/08/2016 13:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188079 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		50-134
460-00-4	4-Bromofluorobenzene	123		67-139
1868-53-7	Dibromofluoromethane	81		62-130
2037-26-5	Toluene-d8 (Surr)	84		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-187679/4

Matrix: Water | Lab File ID: A12403a.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01032		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.008783		0.00100	0.000192
71-43-2	Benzene	0.007838		0.00100	0.000176
91-20-3	Naphthalene	0.007855		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01061		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		50-134
460-00-4	4-Bromofluorobenzene	99		67-139
1868-53-7	Dibromofluoromethane	98		62-130
2037-26-5	Toluene-d8 (Surr)	79		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 600-187679/5

Matrix: Water | Lab File ID: A12404.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009479		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.008360		0.00100	0.000192
71-43-2	Benzene	0.007205		0.00100	0.000176
91-20-3	Naphthalene	0.008263		0.00200	0.000129
127-18-4	Tetrachloroethene	0.009088		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		50-134
460-00-4	4-Bromofluorobenzene	93		67-139
1868-53-7	Dibromofluoromethane	93		62-130
2037-26-5	Toluene-d8 (Surr)	72		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW21- 04282016 Lab Sample ID: 600-130213-16 MS

Matrix: Water Lab File ID: A12423.d

Analysis Method: 8260B Date Collected: 04/28/2016 14:10

Sample wt/vol: 20(mL) Date Analyzed: 05/03/2016 19:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 187679 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01058		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.007814		0.00100	0.000192
71-43-2	Benzene	0.007892		0.00100	0.000176
91-20-3	Naphthalene	0.005579		0.00200	0.000129
127-18-4	Tetrachloroethene	0.009823		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
460-00-4	4-Bromofluorobenzene	91		67-139
1868-53-7	Dibromofluoromethane	109		62-130
2037-26-5	Toluene-d8 (Surr)	85		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130213-1

SDG No.:

Client Sample ID: ARTESIA -MW21- 04282016 | Lab Sample ID: 600-130213-16 MSD

Matrix: Water | Lab File ID: A12424.d

Analysis Method: 8260B | Date Collected: 04/28/2016 14:10

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 20:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 187679 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01103		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.007972		0.00100	0.000192
71-43-2	Benzene	0.008195		0.00100	0.000176
91-20-3	Naphthalene	0.007195		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01072		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134
460-00-4	4-Bromofluorobenzene	89		67-139
1868-53-7	Dibromofluoromethane	111		62-130
2037-26-5	Toluene-d8 (Surr)	85		70-130

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Instrument ID: CHVOAMS01 Start Date: 01/22/2016 11:16

Analysis Batch Number: 181051 End Date: 01/22/2016 23:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-181051/1		01/22/2016 11:16	1	C02200A.D	DB-VRX 60 0.25(mm)
IC 600-181051/2		01/22/2016 11:43	1	C02201.D	DB-VRX 60 0.25(mm)
IC 600-181051/3		01/22/2016 12:09	1	C02202.D	DB-VRX 60 0.25(mm)
IC 600-181051/4		01/22/2016 14:22	1	C02203A.D	DB-VRX 60 0.25(mm)
IC 600-181051/5		01/22/2016 14:48	1	C02204A.D	DB-VRX 60 0.25(mm)
ICIS 600-181051/6		01/22/2016 15:14	1	C02205A.D	DB-VRX 60 0.25(mm)
IC 600-181051/7		01/22/2016 15:40	1	C02206.D	DB-VRX 60 0.25(mm)
IC 600-181051/8		01/22/2016 16:06	1	C02207.D	DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 16:58	1		DB-VRX 60 0.25(mm)
ICV 600-181051/1010		01/22/2016 16:58	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 17:24	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 18:16	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 18:43	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 19:09	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 19:35	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 20:02	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 20:28	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 20:54	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 21:21	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 21:47	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 22:13	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 22:40	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 23:06	1		DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Instrument ID: CHVOAMS01 Start Date: 05/08/2016 09:43

Analysis Batch Number: 188079 End Date: 05/08/2016 21:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-188079/1		05/08/2016 09:43	1	C12800.D	DB-VRX 60 0.25(mm)
CCVIS 600-188079/2		05/08/2016 10:14	1	C12801.D	DB-VRX 60 0.25(mm)
CCV 600-188079/3		05/08/2016 10:39	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 11:04	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 11:30	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 11:55	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 12:21	1		DB-VRX 60 0.25(mm)
MB 600-188079/9		05/08/2016 13:11	1	C12808.D	DB-VRX 60 0.25(mm)
600-130213-1		05/08/2016 13:37	1	C12809.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 14:02	5		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 14:27	10		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 14:53	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 15:18	5		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 15:43	200		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 16:09	2000		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 16:34	200		DB-VRX 60 0.25(mm)
600-130213-2		05/08/2016 16:59	1	C12817.D	DB-VRX 60 0.25(mm)
600-130213-4		05/08/2016 17:24	1	C12818.D	DB-VRX 60 0.25(mm)
600-130213-5		05/08/2016 17:50	1	C12819.D	DB-VRX 60 0.25(mm)
600-130213-22		05/08/2016 18:15	1	C12820.D	DB-VRX 60 0.25(mm)
600-130213-23		05/08/2016 18:40	1	C12821.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 19:06	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 19:31	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 19:56	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 20:22	1		DB-VRX 60 0.25(mm)
600-130213-3		05/08/2016 20:47	20	C12826.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 21:12	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/08/2016 21:38	1		DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Instrument ID: CHVOAMS07 Start Date: 03/21/2016 08:49

Analysis Batch Number: 184699 End Date: 03/21/2016 20:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-184699/1		03/21/2016 08:49	1	A08100.d	DB-VRX 60 0.25(mm)
IC 600-184699/2		03/21/2016 09:46	1	A08101.d	DB-VRX 60 0.25(mm)
IC 600-184699/3		03/21/2016 10:11	1	A08102.d	DB-VRX 60 0.25(mm)
IC 600-184699/4		03/21/2016 10:37	1	A08103.d	DB-VRX 60 0.25(mm)
IC 600-184699/5		03/21/2016 11:02	1	A08104.d	DB-VRX 60 0.25(mm)
ICIS 600-184699/6		03/21/2016 11:28	1	A08105.d	DB-VRX 60 0.25(mm)
IC 600-184699/7		03/21/2016 11:53	1	A08106.d	DB-VRX 60 0.25(mm)
IC 600-184699/8		03/21/2016 12:18	1	A08107.d	DB-VRX 60 0.25(mm)
ICV 600-184699/10		03/21/2016 13:08	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 13:08	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 13:48	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 14:38	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 15:03	25		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 15:29	20		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 15:54	10		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 16:19	10		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 16:45	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 17:10	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 17:35	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 18:01	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 18:26	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 18:51	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 19:17	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 19:42	1		DB-VRX 60 0.25(mm)
ZZZZZ		03/21/2016 20:07	1		DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130213-1

SDG No.:

Instrument ID: CHVOAMS07 Start Date: 05/03/2016 08:40

Analysis Batch Number: 187679 End Date: 05/03/2016 20:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-187679/1		05/03/2016 08:40	1	A12400.d	DB-VRX 60 0.25(mm)
CCVIS 600-187679/2		05/03/2016 11:48	1	A12401b.d	DB-VRX 60 0.25(mm)
LCS 600-187679/4		05/03/2016 12:41	1	A12403a.d	DB-VRX 60 0.25(mm)
LCSD 600-187679/5		05/03/2016 13:04	1	A12404.d	DB-VRX 60 0.25(mm)
MB 600-187679/9		05/03/2016 13:52	1	A12408.d	DB-VRX 60 0.25(mm)
600-130213-6		05/03/2016 14:16	1	A12409.d	DB-VRX 60 0.25(mm)
600-130213-7		05/03/2016 14:40	1	A12410.d	DB-VRX 60 0.25(mm)
600-130213-8		05/03/2016 15:05	1	A12411.d	DB-VRX 60 0.25(mm)
600-130213-16		05/03/2016 15:29	1	A12412.d	DB-VRX 60 0.25(mm)
600-130213-9		05/03/2016 15:52	1	A12413.d	DB-VRX 60 0.25(mm)
600-130213-10		05/03/2016 16:16	1	A12414.d	DB-VRX 60 0.25(mm)
600-130213-11		05/03/2016 16:40	1	A12415.d	DB-VRX 60 0.25(mm)
600-130213-12		05/03/2016 17:04	1	A12416.d	DB-VRX 60 0.25(mm)
600-130213-13		05/03/2016 17:28	1	A12417.d	DB-VRX 60 0.25(mm)
600-130213-14		05/03/2016 17:51	1	A12418.d	DB-VRX 60 0.25(mm)
600-130213-15		05/03/2016 18:15	1	A12419.d	DB-VRX 60 0.25(mm)
600-130213-17		05/03/2016 18:39	1	A12420.d	DB-VRX 60 0.25(mm)
600-130213-20		05/03/2016 19:03	1	A12421.d	DB-VRX 60 0.25(mm)
600-130213-21		05/03/2016 19:26	1	A12422.d	DB-VRX 60 0.25(mm)
600-130213-16 MS		05/03/2016 19:50	1	A12423.d	DB-VRX 60 0.25(mm)
600-130213-16 MSD		05/03/2016 20:14	1	A12424.d	DB-VRX 60 0.25(mm)

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Corpus Christi Job Number: 600-130213-1

SDG No.:

Project: Dowell - Artesia Groundwater

Client Sample ID	Lab Sample ID
ARTESIA -MW18- 04282016	600-130213-5
ARTESIA -MD01- 04282016	600-130213-6
ARTESIA -MW22- 04282016	600-130213-7
ARTESIA -MW25- 04282016	600-130213-8
ARTESIA -MW26- 04282016	600-130213-9
ARTESIA -MW28- 04282016	600-130213-10
ARTESIA -MW29- 04282016	600-130213-11
ARTESIA -MW34- 04282016	600-130213-13
ARTESIA -MW32- 04282016	600-130213-14
ARTESIA -MW31- 04282016	600-130213-15
ARTESIA -MW21- 04282016	600-130213-16
ARTESIA -MW30- 04282016	600-130213-17
ARTESIA -MD02- 04282016	600-130213-20
ARTESIA -INLET- 04282016	600-130213-21
ARTESIA -MIDDLE- 04282016	600-130213-22
ARTESIA -EFFLUENT- 04282016	600-130213-23

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW18- 04282016 Lab Sample ID: 600-130213-5

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 09:15

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MD01- 04282016 Lab Sample ID: 600-130213-6

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 09:20

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW22- 04282016 Lab Sample ID: 600-130213-7

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 10:10

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0145	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW25- 04282016 Lab Sample ID: 600-130213-8

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 10:25

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW26- 04282016 Lab Sample ID: 600-130213-9

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 11:00

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW28- 04282016 Lab Sample ID: 600-130213-10

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 11:20

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW29- 04282016 Lab Sample ID: 600-130213-11

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 11:45

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW34- 04282016 Lab Sample ID: 600-130213-13

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 12:30

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW32- 04282016 Lab Sample ID: 600-130213-14

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 13:20

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW31- 04282016 Lab Sample ID: 600-130213-15

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 13:40

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW21- 04282016 Lab Sample ID: 600-130213-16

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 14:10

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U	F1	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MW30- 04282016 Lab Sample ID: 600-130213-17

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 14:50

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MD02- 04282016 Lab Sample ID: 600-130213-20

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 15:00

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -INLET- 04282016 Lab Sample ID: 600-130213-21

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 15:15

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -MIDDLE- 04282016 Lab Sample ID: 600-130213-22

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 15:20

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA -EFFLUENT- 04282016 Lab Sample ID: 600-130213-23

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG ID.:

Matrix: Water Date Sampled: 04/28/2016 15:25

Reporting Basis: WET Date Received: 05/02/2016 10:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

ICV Source: aICV_esi500_00015 Concentration Units: ug/L

CCV Source: TS_MS250_00030

Analyte	ICV 560-127672/8 05/04/2016 15:43				CCV 560-127672/18 05/04/2016 17:22				CCV 560-127672/31 05/04/2016 18:43			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese, Dissolved	4745		5000	95	2539		2500	102	2637		2500	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

ICV Source: aICV_esi500_00015 Concentration Units: ug/L

CCV Source: TS_MS250_00030

Analyte	CCV 560-127672/44 05/04/2016 20:06				CCV 560-127672/50 05/04/2016 20:49							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese, Dissolved	2547		2500	102	2530		2500	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 560-127672/11 05/04/2016 16:15		CCB 560-127672/20 05/04/2016 17:32		CCB 560-127672/33 05/04/2016 18:53		CCB 560-127672/46 05/04/2016 20:16	
		Found	C	Found	C	Found	C	Found	C
Manganese, Dissolved	50.0	11.6	U	11.6	U	11.6	U	11.6	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 560-127672/52 05/04/2016 20:59							
		Found	C	Found	C	Found	C	Found	C
Manganese, Dissolved	50.0	11.6	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 560-127668/1-A

Instrument Code: Micpms Batch No.: 127672

CAS No.	Analyte	Concentration	C	Q	Method
7439-96-5	Manganese, Dissolved	0.0116	U		6020

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Lab Sample ID: ICSA 560-127672/9 Instrument ID: Micpms

Lab File ID: 013SMPL.D ICS Source: INT-A_00106

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Manganese, Dissolved		**11.2**	
Aluminum	*250000*	*306300*	*123*
Antimony		*0.187*	
Arsenic		*1.72*	
Barium		*0.872*	
Beryllium		*0.262*	
Boron		*-35.7*	
Cadmium		*0.636*	
Calcium	*250000*	*324100*	*130*
Chromium		*1.17*	
Cobalt		*0.468*	
Copper		*5.08*	
Iron	*100000*	*96000*	*96*
Lead		*0.585*	
Lithium		*1.22*	
Magnesium	*250000*	*234900*	*94*
Molybdenum		*0.470*	
Nickel		*-6.33*	
Phosphorus		*-52.6*	
Potassium		*-18.2*	
Selenium		*0.906*	
Silicon		*7017*	
Silver		*0.298*	
Sodium		*-1409*	
Strontium		*2.09*	
Thallium		*0.323*	
Tin		*3.06*	
Titanium		*3.38*	
Uranium		*0.103*	
Vanadium		*1.20*	
Zinc		*4.69*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Lab Sample ID: ICSAB 560-127672/10 Instrument ID: Micpms

Lab File ID: 014SMPL.D ICS Source: INT-AB_00113

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Manganese, Dissolved	**500**	**379**	**76**
Aluminum	*250000*	*317100*	*127*
Antimony		*0.0721*	
Arsenic		*1.62*	
Barium	*500*	*496*	*99*
Beryllium	*500*	*475*	*95*
Boron		*-61.9*	
Cadmium	*1000*	*968*	*97*
Calcium	*250000*	*331500*	*133*
Chromium	*500*	*512*	*102*
Cobalt	*500*	*482*	*96*
Copper	*500*	*492*	*98*
Iron	*100000*	*97140*	*97*
Lead	*1000*	*1499*	*150*
Lithium		*3.18*	
Magnesium	*250000*	*242300*	*97*
Molybdenum		*0.147*	
Nickel	*1000*	*977*	*98*
Phosphorus		*-54.7*	
Potassium		*-19.7*	
Selenium		*2.32*	
Silicon		*8882*	
Silver	*1000*	*2255*	*226*
Sodium		*-1439*	
Strontium		*2.12*	
Thallium		*0.167*	
Tin		*3.59*	
Titanium		*3.12*	
Uranium		*0.0253*	
Vanadium	*500*	*511*	*102*
Zinc	*1000*	*995*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: ARTESIA -MW21- 04282016 MS Lab ID: 600-130213-16 MS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Manganese, Dissolved	3.857		0.0116	U	5.00	77	80-120	F1	6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: ARTESIA -MW21- 04282016 MSD Lab ID: 600-130213-16 MSD

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Manganese, Dissolved	3.441		5.00	69	80-120	11	20	F1	6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 560-127668/2-A

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

Sample Matrix: Water LCS Source: ESI-spkA_00015

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Manganese, Dissolved	5.00	4.460		89	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 600-130213-16

SDG No:

Lab Name: TestAmerica Corpus Christi Job No: 600-130213-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Manganese, Dissolved	0.0116	U	0.0580	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Corpus Christi Job Number: 600-130213-1

SDG Number:

Matrix: Water Instrument ID: Micpms

Method: 6020 MDL Date: 05/02/2011 10:33

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Manganese, Dissolved	55	50	11.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Corpus Christi Job Number: 600-130213-1

SDG Number:

Matrix: Water Instrument ID: Micpms

Method: 6020 XMDL Date: 05/02/2011 10:34

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Manganese, Dissolved	55	50	11.6

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Corpus Christi Job No: 600-130213-1

SDG No.:

Instrument ID: Micpms Date: 05/12/2011 15:16

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Manganese, Dissolved	0.15	50000	6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 560-127668/1-A	05/04/2016 13:30	127668		50	50
LCS 560-127668/2-A	05/04/2016 13:30	127668		50	50
600-130213-16	05/04/2016 13:30	127668		50	50
600-130213-16 MS	05/04/2016 13:30	127668		50	50
600-130213-16 MSD	05/04/2016 13:30	127668		50	50
600-130213-5	05/04/2016 13:30	127668		50	50
600-130213-6	05/04/2016 13:30	127668		50	50
600-130213-7	05/04/2016 13:30	127668		50	50
600-130213-8	05/04/2016 13:30	127668		50	50
600-130213-9	05/04/2016 13:30	127668		50	50
600-130213-10	05/04/2016 13:30	127668		50	50
600-130213-11	05/04/2016 13:30	127668		50	50
600-130213-13	05/04/2016 13:30	127668		50	50
600-130213-14	05/04/2016 13:30	127668		50	50
600-130213-15	05/04/2016 13:30	127668		50	50
600-130213-17	05/04/2016 13:30	127668		50	50
600-130213-20	05/04/2016 13:30	127668		50	50
600-130213-21	05/04/2016 13:30	127668		50	50
600-130213-22	05/04/2016 13:30	127668		50	50
600-130213-23	05/04/2016 13:30	127668		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Instrument ID: Micpms Analysis Method: 6020

Start Date: 05/04/2016 14:57 End Date: 05/04/2016 20:59

Lab Sample Id	D/F	Type	Time	Analytes
				Mn
CALIBSTD 560-127672/1 IC	1		14:57	X
IC 560-127672/2	1		15:04	X
IC 560-127672/3	1		15:13	X
IC 560-127672/4	1		15:18	X
IC 560-127672/5	1		15:23	X
IC 560-127672/6	1		15:28	X
ZZZZZZ			15:38	
ICV 560-127672/8	1		15:43	X
ICSA 560-127672/9	1		15:59	X
ICSAB 560-127672/10	1		16:04	X
ICB 560-127672/11	1		16:15	X
ZZZZZZ			16:20	
ZZZZZZ			16:25	
ZZZZZZ			16:30	
ZZZZZZ			16:35	
ZZZZZZ			16:40	
ZZZZZZ			16:45	
CCV 560-127672/18	1		17:22	X
ZZZZZZ			17:27	
CCB 560-127672/20	1		17:32	X
ZZZZZZ			17:37	
MB 560-127668/1-A	1	T	17:42	X
LCS 560-127668/2-A	1	T	17:47	X
ZZZZZZ			17:53	
600-130213-16	1	D	17:58	X
600-130213-16 MS	1	D	18:04	X
600-130213-16 MSD	1	D	18:09	X
600-130213-16 SD	5	D	18:15	X
600-130213-5	1	D	18:21	X
600-130213-6	1	D	18:27	X
CCV 560-127672/31	1		18:43	X
ZZZZZZ			18:48	
CCB 560-127672/33	1		18:53	X
600-130213-7	1	D	18:58	X
600-130213-8	1	D	19:04	X
600-130213-9	1	D	19:10	X
600-130213-10	1	D	19:15	X
600-130213-11	1	D	19:21	X
600-130213-13	1	D	19:27	X
600-130213-14	1	D	19:33	X
600-130213-15	1	D	19:39	X
600-130213-17	1	D	19:44	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Instrument ID: Micpms Analysis Method: 6020

Start Date: 05/04/2016 14:57 End Date: 05/04/2016 20:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Mn																								
600-130213-20	1	D	19:50	X																								
CCV 560-127672/44	1		20:06	X																								
ZZZZZZ			20:11																									
CCB 560-127672/46	1		20:16	X																								
600-130213-21	1	D	20:21	X																								
600-130213-22	1	D	20:27	X																								
600-130213-23	1	D	20:33	X																								
CCV 560-127672/50	1		20:49	X																								
ZZZZZZ			20:54																									
CCB 560-127672/52	1		20:59	X																								

Prep Types:
D = Dissolved
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 05/04/2016 End Date: 05/04/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element Ge/1	Q
CALIBSTD 560-127672	14:57	100		100		100		100		100	
IC 560-127672/2	15:04	100		103		102		100		103	
IC 560-127672/3	15:13	93		101		100		100		105	
IC 560-127672/4	15:18	88		102		101		103		105	
IC 560-127672/5	15:23	78		100		101		102		106	
IC 560-127672/6	15:28	83		99		98		98		105	
ICV 560-127672/8	15:43	71		96		96		98		105	
ICSA 560-127672/9	15:59	81		96		96		95		101	
ICSAB 560-127672/10	16:04	81		99		97		99		101	
ICB 560-127672/11	16:15	89		100		100		100		100	
CCV 560-127672/18	17:22	85		95		94		100		93	
CCB 560-127672/20	17:32	98		94		94		99		91	
MB 560-127668/1-A	17:42	95		94		94		99		92	
LCS 560-127668/2-A	17:47	81		91		91		96		90	
600-130213-16	17:58	83		90		90		92		90	
600-130213-16 MS	18:04	73		87		87		92		90	
600-130213-16 MSD	18:09	73		87		86		89		88	
600-130213-16 SD	18:15	89		91		91		94		94	
600-130213-5	18:21	82		86		86		90		85	
600-130213-6	18:27	81		87		86		90		84	
CCV 560-127672/31	18:43	86		89		90		96		89	
CCB 560-127672/33	18:53	98		91		91		95		87	
600-130213-7	18:58	81		85		84		89		81	
600-130213-8	19:04	85		88		87		90		86	
600-130213-9	19:10	87		86		86		92		84	
600-130213-10	19:15	85		85		84		87		82	
600-130213-11	19:21	88		85		83		90		82	
600-130213-13	19:27	92		85		84		91		81	
600-130213-14	19:33	96		84		84		94		82	
600-130213-15	19:39	94		83		82		87		79	
600-130213-17	19:44	97		81		82		89		78	
600-130213-20	19:50	96		81		81		90		76	
CCV 560-127672/44	20:06	106		84		84		91		81	
CCB 560-127672/46	20:16	113		85		86		95		79	
600-130213-21	20:21	95		84		82		91		77	
600-130213-22	20:27	94		79		80		87		76	
600-130213-23	20:33	95		79		78		86		74	
CCV 560-127672/50	20:49	111		80		80		92		75	
CCB 560-127672/52	20:59	118		82		82		93		75	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 05/04/2016 End Date: 05/04/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/2	Q	Element Ge/3	Q	Element Y-89/1	Q	Element Y-89/2	Q	Element Y-89/3	Q
CALIBSTD 560-127672	14:57	100		100		100		100		100	
IC 560-127672/2	15:04	102		101		105		103		102	
IC 560-127672/3	15:13	103		102		104		105		101	
IC 560-127672/4	15:18	104		104		105		105		103	
IC 560-127672/5	15:23	105		107		104		103		104	
IC 560-127672/6	15:28	105		105		102		100		97	
ICV 560-127672/8	15:43	106		107		100		100		98	
ICSA 560-127672/9	15:59	101		107		102		100		99	
ICSAB 560-127672/10	16:04	102		107		103		102		100	
ICB 560-127672/11	16:15	101		100		103		102		100	
CCV 560-127672/18	17:22	93		97		97		96		97	
CCB 560-127672/20	17:32	93		94		96		97		97	
MB 560-127668/1-A	17:42	91		94		98		97		98	
LCS 560-127668/2-A	17:47	91		97		95		94		97	
600-130213-16	17:58	88		89		92		89		89	
600-130213-16 MS	18:04	90		91		90		89		89	
600-130213-16 MSD	18:09	88		89		89		89		86	
600-130213-16 SD	18:15	93		92		94		93		91	
600-130213-5	18:21	85		86		87		87		87	
600-130213-6	18:27	85		87		88		86		87	
CCV 560-127672/31	18:43	88		92		91		90		92	
CCB 560-127672/33	18:53	86		89		93		92		93	
600-130213-7	18:58	80		83		86		85		84	
600-130213-8	19:04	84		85		89		85		86	
600-130213-9	19:10	83		85		86		86		86	
600-130213-10	19:15	81		82		85		82		82	
600-130213-11	19:21	80		82		84		79		84	
600-130213-13	19:27	81		85		84		83		84	
600-130213-14	19:33	81		85		84		83		85	
600-130213-15	19:39	78		81		83		81		81	
600-130213-17	19:44	77		81		80		80		82	
600-130213-20	19:50	77		82		80		79		82	
CCV 560-127672/44	20:06	81		86		83		83		84	
CCB 560-127672/46	20:16	79		84		85		84		87	
600-130213-21	20:21	77		80		82		81		83	
600-130213-22	20:27	77		80		78		77		80	
600-130213-23	20:33	73		78		78		76		78	
CCV 560-127672/50	20:49	76		83		79		79		82	
CCB 560-127672/52	20:59	75		81		82		80		85	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 05/04/2016 End Date: 05/04/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In/1	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q	Element Ho	Q
CALIBSTD 560-127672	14:57	100		100		100		100		100	
IC 560-127672/2	15:04	106		104		103		104		104	
IC 560-127672/3	15:13	107		106		104		104		103	
IC 560-127672/4	15:18	107		107		106		107		105	
IC 560-127672/5	15:23	107		107		105		106		106	
IC 560-127672/6	15:28	104		103		99		101		101	
ICV 560-127672/8	15:43	100		99		97		102		101	
ICSA 560-127672/9	15:59	99		98		97		102		103	
ICSAB 560-127672/10	16:04	101		101		99		104		103	
ICB 560-127672/11	16:15	106		105		103		104		103	
CCV 560-127672/18	17:22	98		97		98		97		98	
CCB 560-127672/20	17:32	98		98		100		99		98	
MB 560-127668/1-A	17:42	99		97		99		99		98	
LCS 560-127668/2-A	17:47	93		93		95		97		96	
600-130213-16	17:58	91		89		90		91		91	
600-130213-16 MS	18:04	88		87		87		90		90	
600-130213-16 MSD	18:09	87		86		86		88		87	
600-130213-16 SD	18:15	94		91		91		92		91	
600-130213-5	18:21	86		85		87		89		87	
600-130213-6	18:27	86		84		86		88		87	
CCV 560-127672/31	18:43	92		90		93		93		92	
CCB 560-127672/33	18:53	92		92		94		93		93	
600-130213-7	18:58	83		82		82		84		83	
600-130213-8	19:04	86		85		83		85		84	
600-130213-9	19:10	84		85		84		84		85	
600-130213-10	19:15	81		81		80		81		80	
600-130213-11	19:21	81		76		82		81		81	
600-130213-13	19:27	82		80		82		81		80	
600-130213-14	19:33	82		82		83		83		81	
600-130213-15	19:39	80		78		78		78		75	
600-130213-17	19:44	78		78		80		78		77	
600-130213-20	19:50	78		77		79		78		77	
CCV 560-127672/44	20:06	82		83		84		79		77	
CCB 560-127672/46	20:16	83		84		87		82		81	
600-130213-21	20:21	80		79		82		78		78	
600-130213-22	20:27	77		76		78		76		74	
600-130213-23	20:33	75		74		76		74		73	
CCV 560-127672/50	20:49	79		79		83		77		76	
CCB 560-127672/52	20:59	80		81		84		79		77	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 05/04/2016 End Date: 05/04/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
CALIBSTD 560-127672	14:57	100									
IC 560-127672/2	15:04	105									
IC 560-127672/3	15:13	106									
IC 560-127672/4	15:18	109									
IC 560-127672/5	15:23	107									
IC 560-127672/6	15:28	101									
ICV 560-127672/8	15:43	99									
ICSA 560-127672/9	15:59	97									
ICSAB 560-127672/10	16:04	99									
ICB 560-127672/11	16:15	104									
CCV 560-127672/18	17:22	96									
CCB 560-127672/20	17:32	100									
MB 560-127668/1-A	17:42	100									
LCS 560-127668/2-A	17:47	92									
600-130213-16	17:58	86									
600-130213-16 MS	18:04	84									
600-130213-16 MSD	18:09	82									
600-130213-16 SD	18:15	89									
600-130213-5	18:21	82									
600-130213-6	18:27	82									
CCV 560-127672/31	18:43	90									
CCB 560-127672/33	18:53	93									
600-130213-7	18:58	77									
600-130213-8	19:04	78									
600-130213-9	19:10	80									
600-130213-10	19:15	74									
600-130213-11	19:21	75									
600-130213-13	19:27	74									
600-130213-14	19:33	77									
600-130213-15	19:39	70									
600-130213-17	19:44	72									
600-130213-20	19:50	71									
CCV 560-127672/44	20:06	77									
CCB 560-127672/46	20:16	79									
600-130213-21	20:21	73									
600-130213-22	20:27	70									
600-130213-23	20:33	68									
CCV 560-127672/50	20:49	75									
CCB 560-127672/52	20:59	77									

METALS BATCH WORKSHEET

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Batch Number: 127668 Batch Start Date: 05/04/16 13:30 Batch Analyst: Mathewson, John E

Batch Method: 3010A Batch End Date: 05/04/16 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ESI-spkA 00015	ESI-spkB 00011	
MB 560-127668/1		3010A, 6020		<2	50 mL	50 mL			
LCS 560-127668/2		3010A, 6020		<2	50 mL	50 mL	1 mL	1 mL	
600-130213-A-16	ARTESIA -MW21-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-16 MS	ARTESIA -MW21-04282016	3010A, 6020	D	<2	50 mL	50 mL	1 mL	1 mL	
600-130213-A-16 MSD	ARTESIA -MW21-04282016	3010A, 6020	D	<2	50 mL	50 mL	1 mL	1 mL	
600-130213-A-5	ARTESIA -MW18-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-6	ARTESIA -MD01-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-7	ARTESIA -MW22-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-8	ARTESIA -MW25-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-9	ARTESIA -MW26-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-10	ARTESIA -MW28-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-11	ARTESIA -MW29-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-13	ARTESIA -MW34-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-14	ARTESIA -MW32-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-15	ARTESIA -MW31-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-17	ARTESIA -MW30-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-20	ARTESIA -MD02-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-21	ARTESIA -INLET-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-22	ARTESIA -MIDDLE-04282016	3010A, 6020	D	<2	50 mL	50 mL			
600-130213-A-23	ARTESIA -EFFLUENT-04282016	3010A, 6020	D	<2	50 mL	50 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Corpus Christi Job No.: 600-130213-1

SDG No.:

Batch Number: 127668 Batch Start Date: 05/04/16 13:30 Batch Analyst: Mathewson, John E

Batch Method: 3010A Batch End Date: 05/04/16 17:00

Batch Notes	
Lot # of hydrochloric acid	1361732
Lot # of Nitric Acid	1373795
Hot Block ID	2
Oven, Bath or Block Temperature 1	95 Degrees C
Pipette ID	172
Thermometer ID	215
Digestion Tube/Cup ID	1504103
Uncorrected Temperature	95.6 Degrees C
Uncorrected Temperature 2	95.6 Degrees C

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: L. Hill	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No.: 600-31448-10612 1
Client Contact: Jeffrey Minchak	Phone: 205-240-3235	E-Mail: cathy.upton@testamericainc.com		Page: Page ___ of ___
Company: CH2M Hill, Inc.				Job #:
Address: 4041 Jefferson Plaza NE Suite 200	Due Date Requested:			
City: Albuquerque	TAT Requested (days):			
State, Zip: NM, 87109				
Phone: 281-721-8546(Tel)	PO #: 10381-7-108933			
Email: Jeffrey.Minchak@ch2m.com	WO #:			
Project Name: Dowell - Artesia Groundwater	Project #: 60004334			
Site: Dowell - Artesia Groundwater	SSOW#:			

Analysis Requested

600-130213 Chain of Custody

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - (MOD) Custom List A	6020 - Manganese, Dissolved D	Total Number of container	Special Instructions/Note:
			Preservation Code:							
ARTESIA-TB01-04282016	4/28/16	0700	G	Water	N	N	X			Trip Blank
ARTESIA-MW15-04282016	4/28/16	0810	G	Water	N	N	X			
ARTESIA-MW12-04282016	4/28/16	0820	G	Water	N	N	X			
ARTESIA-MW17C-04282016	4/28/16	0845	G	Water	N	N	X			
ARTESIA-MW18-04282016	4/28/16	0915	G	Water	Y	N	X	X		
ARTESIA-MD01-04282016	4/28/16	0920	G	Water	Y	N	X	X		
ARTESIA-MW22-04282016	4/28/16	1010	G	Water	Y	N	X	X		
ARTESIA-MW25-04282016	4/28/16	1025	G	Water	Y	N	X	X		
ARTESIA-MW26-04282016	4/28/16	1100	G	Water	Y	N	X	X		
ARTESIA-MW28-04282016	4/28/16	1120	G	Water	Y	N	X	X		
ARTESIA-MW29-04282016	4/28/16	1145	G	Water	Y	N	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
L. Hill	4/28/16 1700	CH2M HILL		5/2/16 10:12	TAC
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: | Custody Seal No.. | Cooler Temperature(s) °C and Other Remarks

12/16/2016

~~TestAmerica~~ Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: L. Hill	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No: 600-31448-10612 1
Client Contact: Jeffrey Minchak	Phone: 205-240-3235	E-Mail: cathy.upton@testamericainc.com		Page: Page ____ of ___
Company: CH2M Hill, Inc.		Analysis Requested		Job #:
Address: 4041 Jefferson Plaza NE Suite 200	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
City: Albuquerque	TAT Requested (days):			
State, Zip: NM, 87109				
Phone: 281-721-8546(Tel)	PO #: 10381-7-108933			Other:
Email: Jeffrey.Minchak@ch2m.com	WO #:			
Project Name: Dowell - Artesia Groundwater	Project #: 60004334			
Site: Dowell - Artesia Groundwater	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - (MOD) Custom List A	6020 - Manganese, Dissolved D	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
ARTESIA - MW33 - 04282016	4/28/16	1200	G	Water	N	N	X			
ARTESIA - MW34 - 04282016	4/28/16	1230	G	Water	Y	N	X	X		
ARTESIA - MW32 - 04282016	4/28/16	1320	G	Water	Y	N	X	X		
ARTESIA - MW31 - 04282016	4/28/16	1340	G	Water	Y	N	X	X		
ARTESIA - MW21 - 04282016	4/28/16	1410	G	Water	Y	Y	X	X		
ARTESIA - MW21 - 04282016 - MS	4/28/16	1410	G	Water	Y	Y	X	X		
ARTESIA - MW21 - 04282016 - MSD	4/28/16	1410	G	Water	Y	Y	X	X		
ARTESIA - MW30 - 04282016	4/28/16	1450	G	Water	Y	N	X	X		
ARTESIA - MD02 - 04282016	4/28/16	1500	G	Water	Y	N	X	X		
ARTESIA - INLET - 04282016	4/28/16	1515	G	Water	Y	N	X	X		
ARTESIA - MIDDLE - 04282016	4/28/16	1520	G	Water	Y	N	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
L. Hill	4/28/16 1700	CH2M HILL		5/2/16 10:12	TAL
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks

12/16/2016

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: L. Hill	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No: 600-31448-10612.1
Client Contact: Jeffrey Minchak	Phone: 205-240-3235	E-Mail: cathy.upton@testamericainc.com		Page: Page ___ of ___
Company: CH2M Hill, Inc.		Analysis Requested		Job #:
Address: 4041 Jefferson Plaza NE Suite 200	Due Date Requested:			Preservation Codes:
City: Albuquerque	TAT Requested (days):			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
State, Zip: NM, 87109				
Phone: 281-721-8546(Tel)	PO #: 10381-7-108933			
Email: Jeffrey.Minchak@ch2m.com	WO #:			Other:
Project Name: Dowell - Artesia Groundwater	Project #: 60004334			
Site: Dowell - Artesia Groundwater	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - (MOD) Custom List	6020 - Manganese, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	B		
ARTESIA - EFFLUENT-04282016	4/28/16	1525	G	Water	Y	N	X	X		
			G	Water						
			G	Water						
			G	Water						
			G	Water						
			G	Water						
			G	Water						
			G	Water						
			G	Water						
			G	Water						
			G	Water						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: L. Hill L. Hill	Date/Time: 4/28/16 1700	Company: CH2M HILL	Received by:	Date/Time: 5/2/16	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

12/16/2016

TestAmerica Houston

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

'16 MAY 2 10:12

Loc: 600
130213

Date/Time Received: _____

JOB NUMBER: _____ CLIENT: CZHM Hill

UNPACKED BY: _____ CARRIER/DRIVER: FedEx

Custody Seal Present: ☑ YES ☐ NO Number of Coolers Received: 2

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
BW	Y / (N)	Y / N	8.2	606	0.0	8.2 HNO3 only
RW	Y / N	Y / N	4.2	606	0.0	4.2
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N		JCH		
	Y / N	Y / N		5/2/16		
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☑ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☐ NO ☐ YES

Base samples are>pH 12: ☐ YES ☐ NO Acid preserved are<pH 2: ☐ YES ☐ NO

pH paper Lot #_____

VOA headspace acceptable (5-6mm): ☐ YES ☐ NO ☐ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		

COMMENTS: 6706 1408 7317
1 Out of temp / metals only

JCH
5/2/16

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No: 600-20152.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: cathy.upton@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		**Analysis Requested**		Job #: 600-130213-1
Address: 1733 N. Padre Island Drive, ,	Due Date Requested: 5/12/2016			Preservation Codes:
City: Corpus Christi	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: TX, 78408				
Phone: 361-289-2673(Tel) 361-289-2471(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: Dowell - Artesia Groundwater	Project #: 60004334			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020/FIELD_FLTRD 6020_FF - Metals, Diss Mn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
ARTESIA -MW18- 04282016 (600-130213-5)	4/28/16	09:15 Central		Water			X	1	
ARTESIA -MD01- 04282016 (600-130213-6)	4/28/16	09:20 Central		Water			X	1	
ARTESIA -MW22- 04282016 (600-130213-7)	4/28/16	10:10 Central		Water			X	1	
ARTESIA -MW25- 04282016 (600-130213-8)	4/28/16	10:25 Central		Water			X	1	
ARTESIA -MW26- 04282016 (600-130213-9)	4/28/16	11:00 Central		Water			X	1	
ARTESIA -MW28- 04282016 (600-130213-10)	4/28/16	11:20 Central		Water			X	1	
ARTESIA -MW29- 04282016 (600-130213-11)	4/28/16	11:45 Central		Water			X	1	
ARTESIA -MW34- 04282016 (600-130213-13)	4/28/16	12:30 Central		Water			X	1	
ARTESIA -MW32- 04282016 (600-130213-14)	4/28/16	13:20 Central		Water			X	1	
ARTESIA -MW31- 04282016 (600-130213-15)	4/28/16	13:40 Central		Water			X	1	
ARTESIA -MW21- 04282016 (600-130213-16)	4/28/16	14:10 Central		Water			X	1	

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by:	Date/Time: 5-3-16 1600	Company	Received by:	Date/Time: 5-4-16 1010	Company TACC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: ths. 0.8/co. 0.8 IR6

12/16/2016

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No: 600-20152.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: cathy.upton@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 600-130213-1
Address: 1733 N. Padre Island Drive, ,	Due Date Requested: 5/12/2016			
City: Corpus Christi	TAT Requested (days):			
State, Zip: TX, 78408				
Phone: 361-289-2673(Tel) 361-289-2471(Fax)	PO #:			
Email:	WO #:			
Project Name: Dowell - Artesia Groundwater	Project #: 60004334			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020/FIELD_FLTRD 6020_FF - Metals, Diss Mn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
ARTESIA -MW21- 04282016 (600-130213-16MS)	4/28/16	14:10 Central	MS	Water			X	1	
ARTESIA -MW21- 04282016 (600-130213-16MSD)	4/28/16	14:10 Central	MSD	Water			X	1	
ARTESIA -MW30- 04282016 (600-130213-17)	4/28/16	14:50 Central		Water			X	1	
ARTESIA -MD02- 04282016 (600-130213-20)	4/28/16	15:00 Central		Water			X	1	
ARTESIA -INLET- 04282016 (600-130213-21)	4/28/16	15:15 Central		Water			X	1	
ARTESIA -MIDDLE- 04282016 (600-130213-22)	4/28/16	15:20 Central		Water			X	1	
ARTESIA -EFFLUENT- 04282016 (600-130213-23)	4/28/16	15:25 Central		Water			X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/5/16 1600				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

12/16/2016

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-130213-1

Login Number: 130213
List Number: 1
Creator: Hilton, Jeremy C

List Source: TestAmerica Houston

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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.	False	
Cooler Temperature is recorded.	True	8.2/4.2
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?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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.	True	
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	Check done at department level as required.

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-130213-1

Login Number: 130213
List Number: 2
Creator: Etter, Corey M

List Source: TestAmerica Corpus Christi
List Creation: 05/04/16 10:51 AM

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?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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.	True	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Job Number: 600-138323-1

Job Description: Dowell - Artesia Groundwater

For:
CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, NM 87109

Attention: Jeffrey Minchak



Approved for release.
Cathy L Upton
Project Manager I
10/30/2016 7:12 PM

Cathy L Upton, Project Manager I
6310 Rothway Street, Houston, TX, 77040
(713)690-4444
cathy.upton@testamericainc.com
10/30/2016

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CASE NARRATIVE

Client: CH2M Hill, Inc.

Project: Dowell - Artesia Groundwater

Report Number: 600-138323-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

Note: All samples that require thermal preservation are considered acceptable if the arrival temperature is within 2°C of the required temperature or method specified range. For samples with a specified temperature of 4°C, samples with a temperature ranging from just above freezing temperature of water to 6°C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

The samples were received on 10/14/2016; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.8º C and 5.0º C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Client requested we update the sample IDs for these three samples--see attached email.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples ARTESIA-MW15-10122016 (600-138323-1), ARTESIA-MW12-10122016 (600-138323-2), ARTESIA-MW17C-10122016 (600-138323-3), ARTESIA-MW8-10122016 (600-138323-4), ARTESIA-MW11-10122016 (600-138323-5), ARTESIA-MW18-10122016 (600-138323-6), ARTESIA-MW20-10122016 (600-138323-7), ARTESIA-MW21-10122016 (600-138323-8), ARTESIA-MW31-10122016 (600-138323-9), ARTESIA-MW22-10122016 (600-138323-10), ARTESIA-MW25-10122016 (600-138323-11), ARTESIA-MW26-10122016 (600-138323-12), ARTESIA-MW28-10122016 (600-138323-13), ARTESIA-MW34-10122016 (600-138323-14), ARTESIA-MW29-10122016 (600-138323-15), ARTESIA-MW30-10122016 (600-138323-16), ARTESIA-TB01-10122016 (600-138323-17), ARTESIA-MW32-10132016 (600-138323-18), ARTESIA-MW33-10132016 (600-138323-19), ARTESIA-INLET-10132016 (600-138323-20), ARTESIA-MIDDLE-10132016 (600-138323-21), ARTESIA-EFFLUENT-10132016 (600-138323-22), ARTESIA-MD18-10122016 (600-138323-23) and ARTESIA-MD30-10122016 (600-138323-24) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 10/21/2016 and 10/22/2016.

Naphthalene exceeded the RPD limit for LCSD 600-199328/5.

Refer to the QC report for details.

1,1-Dichloroethane failed the recovery criteria low for the MSD of sample ARTESIA-MW11-10122016MSD (600-138323-5) in batch 600-199231. Sample matrix interference is suspected since the associated laboratory control sample (LCS) was within acceptance limits.

Refer to the QC report for details.

Sample ARTESIA-MW12-10122016 (600-138323-2)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICPMS)

Samples ARTESIA-MW18-10122016 (600-138323-6), ARTESIA-MW21-10122016 (600-138323-8), ARTESIA-MW31-10122016 (600-138323-9), ARTESIA-MW22-10122016 (600-138323-10), ARTESIA-MW25-10122016 (600-138323-11), ARTESIA-MW26-10122016 (600-138323-12), ARTESIA-MW28-10122016 (600-138323-13), ARTESIA-MW34-10122016 (600-138323-14),

ARTESIA-MW29-10122016 (600-138323-15), ARTESIA-MW30-10122016 (600-138323-16), ARTESIA-MW32-10132016 (600-138323-18), ARTESIA-INLET-10132016 (600-138323-20), ARTESIA-MIDDLE-10132016 (600-138323-21), ARTESIA-EFFLUENT-10132016 (600-138323-22), ARTESIA-MD18-10122016 (600-138323-23) and ARTESIA-MD30-10122016 (600-138323-24) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 10/19/2016 and analyzed on 10/20/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-138323-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
6020	Metals (ICP/MS)	SW846	TAL CC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CC = TestAmerica Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-138323-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-138323-1	ARTESIA-MW15-10122016	Water	10/12/16 10:30	10/14/16 10:07
600-138323-2	ARTESIA-MW12-10122016	Water	10/12/16 11:00	10/14/16 10:07
600-138323-3	ARTESIA-MW17C-10122016	Water	10/12/16 11:20	10/14/16 10:07
600-138323-4	ARTESIA-MW8-10122016	Water	10/12/16 12:00	10/14/16 10:07
600-138323-5	ARTESIA-MW11-10122016	Water	10/12/16 12:40	10/14/16 10:07
600-138323-6	ARTESIA-MW18-10122016	Water	10/12/16 13:00	10/14/16 10:07
600-138323-7	ARTESIA-MW20-10122016	Water	10/12/16 13:30	10/14/16 10:07
600-138323-8	ARTESIA-MW21-10122016	Water	10/12/16 14:00	10/14/16 10:07
600-138323-9	ARTESIA-MW31-10122016	Water	10/12/16 14:15	10/14/16 10:07
600-138323-10	ARTESIA-MW22-10122016	Water	10/12/16 14:30	10/14/16 10:07
600-138323-11	ARTESIA-MW25-10122016	Water	10/12/16 14:50	10/14/16 10:07
600-138323-12	ARTESIA-MW26-10122016	Water	10/12/16 15:00	10/14/16 10:07
600-138323-13	ARTESIA-MW28-10122016	Water	10/12/16 15:30	10/14/16 10:07
600-138323-14	ARTESIA-MW34-10122016	Water	10/12/16 16:00	10/14/16 10:07
600-138323-15	ARTESIA-MW29-10122016	Water	10/12/16 16:30	10/14/16 10:07
600-138323-16	ARTESIA-MW30-10122016	Water	10/12/16 17:00	10/14/16 10:07
600-138323-17	ARTESIA-TB01-10122016	Water	10/12/16 08:00	10/14/16 10:07
600-138323-18	ARTESIA-MW32-10132016	Water	10/13/16 09:00	10/14/16 10:07
600-138323-19	ARTESIA-MW33-10132016	Water	10/13/16 09:45	10/14/16 10:07
600-138323-20	ARTESIA-INLET-10132016	Water	10/13/16 08:15	10/14/16 10:07
600-138323-21	ARTESIA-MIDDLE-10132016	Water	10/13/16 08:20	10/14/16 10:07
600-138323-22	ARTESIA-EFFLUENT-10132016	Water	10/13/16 08:25	10/14/16 10:07
600-138323-23	ARTESIA-MD18-10122016	Water	10/12/16 13:00	10/14/16 10:07
600-138323-24	ARTESIA-MD30-10122016	Water	10/12/16 17:00	10/14/16 10:07

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-138323-1

Client Sample ID: ARTESIA-MW15-10122016 — Lab Sample ID: 600-138323-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.000582	J	0.00200	0.000129	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW12-10122016 — Lab Sample ID: 600-138323-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.00440		0.00100	0.000192	mg/L	1		8260B	Total/NA
Benzene	0.0485		0.00100	0.000176	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00232		0.00100	0.000333	mg/L	1		8260B	Total/NA
1,1-Dichloroethane - DL	0.0595		0.0200	0.00336	mg/L	20		8260B	Total/NA
Naphthalene - DL	0.296		0.0400	0.00258	mg/L	20		8260B	Total/NA

Client Sample ID: ARTESIA-MW17C-10122016 — Lab Sample ID: 600-138323-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000359	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000557	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000646	J	0.00200	0.000129	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW8-10122016 — Lab Sample ID: 600-138323-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00416		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000733	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000603	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.000749	J	0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW11-10122016 — Lab Sample ID: 600-138323-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00548	F1	0.00100	0.000168	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.000898	J	0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW18-10122016 — Lab Sample ID: 600-138323-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000427	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00175		0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.00118	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00196		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0177	J	0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-MW20-10122016 — Lab Sample ID: 600-138323-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00811		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000866	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000962	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00178		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW21-10122016 — Lab Sample ID: 600-138323-8

This Detection Summary does not include radiochemical test results.

Client Sample ID: ARTESIA-MW21-10122016 (Continued) — Lab Sample ID: 600-138323-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.000882	J	0.00200	0.000129	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW31-10122016 — Lab Sample ID: 600-138323-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000317	J	0.00100	0.000168	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW22-10122016 — Lab Sample ID: 600-138323-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00117		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00151		0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000609	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00431		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0434	J	0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-MW25-10122016 — Lab Sample ID: 600-138323-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00113		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00392		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00521		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.156		0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-MW26-10122016 — Lab Sample ID: 600-138323-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000336	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00101		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00111		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0353	J	0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-MW28-10122016 — Lab Sample ID: 600-138323-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00549		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0120		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0175		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW34-10122016 — Lab Sample ID: 600-138323-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00200		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00694		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00505		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW29-10122016 — Lab Sample ID: 600-138323-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00990		0.00100	0.000168	mg/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: ARTESIA-MW29-10122016 (Continued) — Lab Sample ID: 600-138323-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.0332		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0238		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW30-10122016 — Lab Sample ID: 600-138323-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00283		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00473		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00592		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-TB01-10122016 — Lab Sample ID: 600-138323-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.000624	J	0.00200	0.000129	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW32-10132016 — Lab Sample ID: 600-138323-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00115		0.00100	0.000168	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00291		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW33-10132016 — Lab Sample ID: 600-138323-19

No Detections.

Client Sample ID: ARTESIA-INLET-10132016 — Lab Sample ID: 600-138323-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00434		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0149		0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000605	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0168		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0261	J	0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-MIDDLE-10132016 — Lab Sample ID: 600-138323-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00423		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0131		0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000742	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0143		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0245	J	0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-EFFLUENT-10132016 — Lab Sample ID: 600-138323-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000434	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
Naphthalene	0.000682	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0312	J	0.0500	0.0116	mg/L	1		6020	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-138323-1

Client Sample ID: ARTESIA-MD18-10122016 — Lab Sample ID: 600-138323-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000488	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00183		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00167		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0146	J	0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-MD30-10122016 — Lab Sample ID: 600-138323-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00270		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00288		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00731		0.00100	0.000333	mg/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: ARTESIA-MW15-10122016

Lab Sample ID: 600-138323-1

Date Collected: 10/12/16 10:30
Matrix: Water
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			10/21/16 16:51	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/21/16 16:51	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/21/16 16:51	1
Naphthalene	**0.000582**	**J**	0.00200	0.000129	mg/L			10/22/16 14:53	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/21/16 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*69*		*50 - 134*		*10/21/16 16:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*75*		*50 - 134*		*10/22/16 14:53*	*1*
4-Bromofluorobenzene	*73*		*67 - 139*		*10/21/16 16:51*	*1*
4-Bromofluorobenzene	*68*		*67 - 139*		*10/22/16 14:53*	*1*
Dibromofluoromethane	*74*		*62 - 130*		*10/21/16 16:51*	*1*
Dibromofluoromethane	*85*		*62 - 130*		*10/22/16 14:53*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/21/16 16:51*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/22/16 14:53*	*1*

Client Sample ID: ARTESIA-MW12-10122016

Lab Sample ID: 600-138323-2

Date Collected: 10/12/16 11:00
Matrix: Water
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**0.00440**		0.00100	0.000192	mg/L			10/21/16 16:27	1
Benzene	**0.0485**		0.00100	0.000176	mg/L			10/21/16 16:27	1
Tetrachloroethene	**0.00232**		0.00100	0.000333	mg/L			10/21/16 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*61*		*50 - 134*		*10/21/16 16:27*	*1*
4-Bromofluorobenzene	*77*		*67 - 139*		*10/21/16 16:27*	*1*
Dibromofluoromethane	*75*		*62 - 130*		*10/21/16 16:27*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*10/21/16 16:27*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.0595**		0.0200	0.00336	mg/L			10/22/16 16:30	20
Naphthalene	**0.296**		0.0400	0.00258	mg/L			10/22/16 16:30	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*74*		*50 - 134*		*10/22/16 16:30*	*20*
4-Bromofluorobenzene	*84*		*67 - 139*		*10/22/16 16:30*	*20*
Dibromofluoromethane	*78*		*62 - 130*		*10/22/16 16:30*	*20*
Toluene-d8 (Surr)	*103*		*70 - 130*		*10/22/16 16:30*	*20*

Client Sample ID: ARTESIA-MW17C-10122016

Lab Sample ID: 600-138323-3

Date Collected: 10/12/16 11:20
Matrix: Water
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.000359**	**J**	0.00100	0.000168	mg/L			10/21/16 17:15	1
1,1-Dichloroethene	**0.000557**	**J**	0.00100	0.000192	mg/L			10/21/16 17:15	1

Client Sample ID: ARTESIA-MW17C-10122016

Lab Sample ID: 600-138323-3

Date Collected: 10/12/16 11:20

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/21/16 17:15	1
Naphthalene	**0.000646**	**J**	0.00200	0.000129	mg/L			10/22/16 12:03	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/21/16 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*65*		*50 - 134*		*10/21/16 17:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*68*		*50 - 134*		*10/22/16 12:03*	*1*
4-Bromofluorobenzene	*71*		*67 - 139*		*10/21/16 17:15*	*1*
4-Bromofluorobenzene	*74*		*67 - 139*		*10/22/16 12:03*	*1*
Dibromofluoromethane	*73*		*62 - 130*		*10/21/16 17:15*	*1*
Dibromofluoromethane	*78*		*62 - 130*		*10/22/16 12:03*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/21/16 17:15*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*10/22/16 12:03*	*1*

Client Sample ID: ARTESIA-MW8-10122016

Lab Sample ID: 600-138323-4

Date Collected: 10/12/16 12:00

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00416**		0.00100	0.000168	mg/L			10/21/16 17:39	1
1,1-Dichloroethene	**0.000733**	**J**	0.00100	0.000192	mg/L			10/21/16 17:39	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/21/16 17:39	1
Naphthalene	**0.000603**	**J**	0.00200	0.000129	mg/L			10/22/16 12:27	1
Tetrachloroethene	**0.000749**	**J**	0.00100	0.000333	mg/L			10/21/16 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*70*		*50 - 134*		*10/21/16 17:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*76*		*50 - 134*		*10/22/16 12:27*	*1*
4-Bromofluorobenzene	*71*		*67 - 139*		*10/21/16 17:39*	*1*
4-Bromofluorobenzene	*75*		*67 - 139*		*10/22/16 12:27*	*1*
Dibromofluoromethane	*82*		*62 - 130*		*10/21/16 17:39*	*1*
Dibromofluoromethane	*81*		*62 - 130*		*10/22/16 12:27*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*10/21/16 17:39*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/22/16 12:27*	*1*

Client Sample ID: ARTESIA-MW11-10122016

Lab Sample ID: 600-138323-5

Date Collected: 10/12/16 12:40

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00548**	**F1**	0.00100	0.000168	mg/L			10/21/16 16:03	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/21/16 16:03	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/21/16 16:03	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/21/16 16:03	1
Tetrachloroethene	**0.000898**	**J**	0.00100	0.000333	mg/L			10/21/16 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*70*		*50 - 134*		*10/21/16 16:03*	*1*
4-Bromofluorobenzene	*79*		*67 - 139*		*10/21/16 16:03*	*1*

Client Sample ID: ARTESIA-MW11-10122016

Lab Sample ID: 600-138323-5
Matrix: Water
Date Collected: 10/12/16 12:40
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*82*		*62 - 130*		*10/21/16 16:03*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*10/21/16 16:03*	*1*

Client Sample ID: ARTESIA-MW18-10122016

Lab Sample ID: 600-138323-6
Matrix: Water
Date Collected: 10/12/16 13:00
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.000427**	**J**	0.00100	0.000168	mg/L			10/21/16 18:03	1
1,1-Dichloroethene	**0.00175**		0.00100	0.000192	mg/L			10/21/16 18:03	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/21/16 18:03	1
Naphthalene	**0.00118**	**J**	0.00200	0.000129	mg/L			10/21/16 18:03	1
Tetrachloroethene	**0.00196**		0.00100	0.000333	mg/L			10/21/16 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*75*		*50 - 134*		*10/21/16 18:03*	*1*
4-Bromofluorobenzene	*73*		*67 - 139*		*10/21/16 18:03*	*1*
Dibromofluoromethane	*80*		*62 - 130*		*10/21/16 18:03*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/21/16 18:03*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.0177**	**J**	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 18:52	1

Client Sample ID: ARTESIA-MW20-10122016

Lab Sample ID: 600-138323-7
Matrix: Water
Date Collected: 10/12/16 13:30
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00811**		0.00100	0.000168	mg/L			10/21/16 18:27	1
1,1-Dichloroethene	**0.000866**	**J**	0.00100	0.000192	mg/L			10/21/16 18:27	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/21/16 18:27	1
Naphthalene	**0.000962**	**J**	0.00200	0.000129	mg/L			10/21/16 18:27	1
Tetrachloroethene	**0.00178**		0.00100	0.000333	mg/L			10/21/16 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*76*		*50 - 134*		*10/21/16 18:27*	*1*
4-Bromofluorobenzene	*73*		*67 - 139*		*10/21/16 18:27*	*1*
Dibromofluoromethane	*79*		*62 - 130*		*10/21/16 18:27*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*10/21/16 18:27*	*1*

Client Sample ID: ARTESIA-MW21-10122016

Lab Sample ID: 600-138323-8
Matrix: Water
Date Collected: 10/12/16 14:00
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			10/21/16 18:50	1

Client Sample ID: ARTESIA-MW21-10122016

Lab Sample ID: 600-138323-8

Date Collected: 10/12/16 14:00

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/21/16 18:50	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/21/16 18:50	1
Naphthalene	**0.000882**	**J**	0.00200	0.000129	mg/L			10/21/16 18:50	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/21/16 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*75*		*50 - 134*		*10/21/16 18:50*	*1*
4-Bromofluorobenzene	*74*		*67 - 139*		*10/21/16 18:50*	*1*
Dibromofluoromethane	*80*		*62 - 130*		*10/21/16 18:50*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/21/16 18:50*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 18:58	1

Client Sample ID: ARTESIA-MW31-10122016

Lab Sample ID: 600-138323-9

Date Collected: 10/12/16 14:15

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.000317**	**J**	0.00100	0.000168	mg/L			10/22/16 13:18	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/22/16 13:18	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 13:18	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/22/16 13:18	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/22/16 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*75*		*50 - 134*		*10/22/16 13:18*	*1*
4-Bromofluorobenzene	*72*		*67 - 139*		*10/22/16 13:18*	*1*
Dibromofluoromethane	*82*		*62 - 130*		*10/22/16 13:18*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/22/16 13:18*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 19:04	1

Client Sample ID: ARTESIA-MW22-10122016

Lab Sample ID: 600-138323-10

Date Collected: 10/12/16 14:30

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00117**		0.00100	0.000168	mg/L			10/22/16 13:41	1
1,1-Dichloroethene	**0.00151**		0.00100	0.000192	mg/L			10/22/16 13:41	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 13:41	1
Naphthalene	**0.000609**	**J**	0.00200	0.000129	mg/L			10/22/16 13:41	1
Tetrachloroethene	**0.00431**		0.00100	0.000333	mg/L			10/22/16 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*72*		*50 - 134*		*10/22/16 13:41*	*1*

Client Sample ID: ARTESIA-MW22-10122016 — Lab Sample ID: 600-138323-10

Date Collected: 10/12/16 14:30 **Matrix: Water**
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*75*		*67 - 139*		*10/22/16 13:41*	*1*
Dibromofluoromethane	*82*		*62 - 130*		*10/22/16 13:41*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*10/22/16 13:41*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.0434**	**J**	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 19:10	1

Client Sample ID: ARTESIA-MW25-10122016 — Lab Sample ID: 600-138323-11

Date Collected: 10/12/16 14:50 **Matrix: Water**
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00113**		0.00100	0.000168	mg/L			10/22/16 14:05	1
1,1-Dichloroethene	**0.00392**		0.00100	0.000192	mg/L			10/22/16 14:05	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 14:05	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/22/16 14:05	1
Tetrachloroethene	**0.00521**		0.00100	0.000333	mg/L			10/22/16 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*50 - 134*		*10/22/16 14:05*	*1*
4-Bromofluorobenzene	*75*		*67 - 139*		*10/22/16 14:05*	*1*
Dibromofluoromethane	*83*		*62 - 130*		*10/22/16 14:05*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*10/22/16 14:05*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.156**		0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 19:15	1

Client Sample ID: ARTESIA-MW26-10122016 — Lab Sample ID: 600-138323-12

Date Collected: 10/12/16 15:00 **Matrix: Water**
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.000336**	**J**	0.00100	0.000168	mg/L			10/22/16 14:29	1
1,1-Dichloroethene	**0.00101**		0.00100	0.000192	mg/L			10/22/16 14:29	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 14:29	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/22/16 14:29	1
Tetrachloroethene	**0.00111**		0.00100	0.000333	mg/L			10/22/16 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*77*		*50 - 134*		*10/22/16 14:29*	*1*
4-Bromofluorobenzene	*74*		*67 - 139*		*10/22/16 14:29*	*1*
Dibromofluoromethane	*85*		*62 - 130*		*10/22/16 14:29*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/22/16 14:29*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.0353**	**J**	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 19:21	1

Client Sample ID: ARTESIA-MW28-10122016

Lab Sample ID: 600-138323-13

Date Collected: 10/12/16 15:30

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00549**		0.00100	0.000168	mg/L			10/22/16 12:51	1
1,1-Dichloroethene	**0.0120**		0.00100	0.000192	mg/L			10/22/16 12:51	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 12:51	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/22/16 12:51	1
Tetrachloroethene	**0.0175**		0.00100	0.000333	mg/L			10/22/16 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*68*		*50 - 134*		*10/22/16 12:51*	*1*
4-Bromofluorobenzene	*75*		*67 - 139*		*10/22/16 12:51*	*1*
Dibromofluoromethane	*79*		*62 - 130*		*10/22/16 12:51*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/22/16 12:51*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 18:04	1

Client Sample ID: ARTESIA-MW34-10122016

Lab Sample ID: 600-138323-14

Date Collected: 10/12/16 16:00

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00200**		0.00100	0.000168	mg/L			10/22/16 17:01	1
1,1-Dichloroethene	**0.00694**		0.00100	0.000192	mg/L			10/22/16 17:01	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 17:01	1
Naphthalene	0.000129	U *	0.00200	0.000129	mg/L			10/22/16 17:01	1
Tetrachloroethene	**0.00505**		0.00100	0.000333	mg/L			10/22/16 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*75*		*50 - 134*		*10/22/16 17:01*	*1*
4-Bromofluorobenzene	*69*		*67 - 139*		*10/22/16 17:01*	*1*
Dibromofluoromethane	*85*		*62 - 130*		*10/22/16 17:01*	*1*
Toluene-d8 (Surr)	*85*		*70 - 130*		*10/22/16 17:01*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:40	10/20/16 20:48	1

Client Sample ID: ARTESIA-MW29-10122016

Lab Sample ID: 600-138323-15

Date Collected: 10/12/16 16:30

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00990**		0.00100	0.000168	mg/L			10/22/16 15:08	1
1,1-Dichloroethene	**0.0332**		0.00100	0.000192	mg/L			10/22/16 15:08	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 15:08	1
Naphthalene	0.000129	U *	0.00200	0.000129	mg/L			10/22/16 15:08	1
Tetrachloroethene	**0.0238**		0.00100	0.000333	mg/L			10/22/16 15:08	1

Client Sample ID: ARTESIA-MW29-10122016

Lab Sample ID: 600-138323-15

Date Collected: 10/12/16 16:30

Matrix: Water

Date Received: 10/14/16 10:07

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*73*		*50 - 134*		*10/22/16 15:08*	*1*
4-Bromofluorobenzene	*70*		*67 - 139*		*10/22/16 15:08*	*1*
Dibromofluoromethane	*81*		*62 - 130*		*10/22/16 15:08*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*10/22/16 15:08*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 19:27	1

Client Sample ID: ARTESIA-MW30-10122016

Lab Sample ID: 600-138323-16

Date Collected: 10/12/16 17:00

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00283**		0.00100	0.000168	mg/L			10/22/16 15:36	1
1,1-Dichloroethene	**0.00473**		0.00100	0.000192	mg/L			10/22/16 15:36	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 15:36	1
Naphthalene	0.000129	U *	0.00200	0.000129	mg/L			10/22/16 15:36	1
Tetrachloroethene	**0.00592**		0.00100	0.000333	mg/L			10/22/16 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*73*		*50 - 134*		*10/22/16 15:36*	*1*
4-Bromofluorobenzene	*69*		*67 - 139*		*10/22/16 15:36*	*1*
Dibromofluoromethane	*83*		*62 - 130*		*10/22/16 15:36*	*1*
Toluene-d8 (Surr)	*87*		*70 - 130*		*10/22/16 15:36*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 19:33	1

Client Sample ID: ARTESIA-TB01-10122016

Lab Sample ID: 600-138323-17

Date Collected: 10/12/16 08:00

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			10/22/16 11:40	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/22/16 11:40	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 11:40	1
Naphthalene	**0.000624**	**J**	0.00200	0.000129	mg/L			10/22/16 11:40	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/22/16 11:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*69*		*50 - 134*		*10/22/16 11:40*	*1*
4-Bromofluorobenzene	*79*		*67 - 139*		*10/22/16 11:40*	*1*
Dibromofluoromethane	*76*		*62 - 130*		*10/22/16 11:40*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*10/22/16 11:40*	*1*

Client Sample ID: ARTESIA-MW32-10132016

Lab Sample ID: 600-138323-18

Date Collected: 10/13/16 09:00

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00115**		0.00100	0.000168	mg/L			10/22/16 16:04	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/22/16 16:04	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 16:04	1
Naphthalene	0.000129	U *	0.00200	0.000129	mg/L			10/22/16 16:04	1
Tetrachloroethene	**0.00291**		0.00100	0.000333	mg/L			10/22/16 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*74*		*50 - 134*		*10/22/16 16:04*	*1*
4-Bromofluorobenzene	*69*		*67 - 139*		*10/22/16 16:04*	*1*
Dibromofluoromethane	*83*		*62 - 130*		*10/22/16 16:04*	*1*
Toluene-d8 (Surr)	*86*		*70 - 130*		*10/22/16 16:04*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 19:38	1

Client Sample ID: ARTESIA-MW33-10132016

Lab Sample ID: 600-138323-19

Date Collected: 10/13/16 09:45

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			10/22/16 16:33	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/22/16 16:33	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 16:33	1
Naphthalene	0.000129	U *	0.00200	0.000129	mg/L			10/22/16 16:33	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/22/16 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*73*		*50 - 134*		*10/22/16 16:33*	*1*
4-Bromofluorobenzene	*70*		*67 - 139*		*10/22/16 16:33*	*1*
Dibromofluoromethane	*81*		*62 - 130*		*10/22/16 16:33*	*1*
Toluene-d8 (Surr)	*87*		*70 - 130*		*10/22/16 16:33*	*1*

Client Sample ID: ARTESIA-INLET-10132016

Lab Sample ID: 600-138323-20

Date Collected: 10/13/16 08:15

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00434**		0.00100	0.000168	mg/L			10/22/16 15:17	1
1,1-Dichloroethene	**0.0149**		0.00100	0.000192	mg/L			10/22/16 15:17	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 15:17	1
Naphthalene	**0.000605**	**J**	0.00200	0.000129	mg/L			10/22/16 15:17	1
Tetrachloroethene	**0.0168**		0.00100	0.000333	mg/L			10/22/16 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*50 - 134*		*10/22/16 15:17*	*1*
4-Bromofluorobenzene	*80*		*67 - 139*		*10/22/16 15:17*	*1*
Dibromofluoromethane	*88*		*62 - 130*		*10/22/16 15:17*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*10/22/16 15:17*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0261	J	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 19:44	1

Client Sample ID: ARTESIA-MIDDLE-10132016 — Lab Sample ID: 600-138323-21

Date Collected: 10/13/16 08:20 — **Matrix: Water**
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00423		0.00100	0.000168	mg/L			10/22/16 17:18	1
1,1-Dichloroethene	0.0131		0.00100	0.000192	mg/L			10/22/16 17:18	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 17:18	1
Naphthalene	0.000742	J	0.00200	0.000129	mg/L			10/22/16 17:18	1
Tetrachloroethene	0.0143		0.00100	0.000333	mg/L			10/22/16 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*79*		*50 - 134*		*10/22/16 17:18*	*1*
4-Bromofluorobenzene	*78*		*67 - 139*		*10/22/16 17:18*	*1*
Dibromofluoromethane	*85*		*62 - 130*		*10/22/16 17:18*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*10/22/16 17:18*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0245	J	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 20:16	1

Client Sample ID: ARTESIA-EFFLUENT-10132016 — Lab Sample ID: 600-138323-22

Date Collected: 10/13/16 08:25 — **Matrix: Water**
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000434	J	0.00100	0.000168	mg/L			10/22/16 17:42	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/22/16 17:42	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 17:42	1
Naphthalene	0.000682	J	0.00200	0.000129	mg/L			10/22/16 17:42	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/22/16 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*79*		*50 - 134*		*10/22/16 17:42*	*1*
4-Bromofluorobenzene	*77*		*67 - 139*		*10/22/16 17:42*	*1*
Dibromofluoromethane	*85*		*62 - 130*		*10/22/16 17:42*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*10/22/16 17:42*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0312	J	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 20:22	1

Client Sample ID: ARTESIA-MD18-10122016 — Lab Sample ID: 600-138323-23

Date Collected: 10/12/16 13:00 — **Matrix: Water**
Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000488	J	0.00100	0.000168	mg/L			10/22/16 18:06	1
1,1-Dichloroethene	0.00183		0.00100	0.000192	mg/L			10/22/16 18:06	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 18:06	1

Client Sample ID: ARTESIA-MD18-10122016

Lab Sample ID: 600-138323-23

Date Collected: 10/12/16 13:00

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/22/16 18:06	1
Tetrachloroethene	**0.00167**		0.00100	0.000333	mg/L			10/22/16 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*50 - 134*		*10/22/16 18:06*	*1*
4-Bromofluorobenzene	*77*		*67 - 139*		*10/22/16 18:06*	*1*
Dibromofluoromethane	*88*		*62 - 130*		*10/22/16 18:06*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*10/22/16 18:06*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.0146**	**J**	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 20:27	1

Client Sample ID: ARTESIA-MD30-10122016

Lab Sample ID: 600-138323-24

Date Collected: 10/12/16 17:00

Matrix: Water

Date Received: 10/14/16 10:07

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.00270**		0.00100	0.000168	mg/L			10/22/16 18:30	1
1,1-Dichloroethene	**0.00288**		0.00100	0.000192	mg/L			10/22/16 18:30	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 18:30	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/22/16 18:30	1
Tetrachloroethene	**0.00731**		0.00100	0.000333	mg/L			10/22/16 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*50 - 134*		*10/22/16 18:30*	*1*
4-Bromofluorobenzene	*74*		*67 - 139*		*10/22/16 18:30*	*1*
Dibromofluoromethane	*89*		*62 - 130*		*10/22/16 18:30*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*10/22/16 18:30*	*1*

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:40	10/20/16 21:49	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	RPD of the LCS and LCSD exceeds the control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
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)

Surrogate Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-138323-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(50-134)	(67-139)	(62-130)	(70-130)
600-138323-1	ARTESIA-MW15-10122016	69	73	74	105
600-138323-1	ARTESIA-MW15-10122016	75	68	85	102
600-138323-2	ARTESIA-MW12-10122016	61	77	75	98
600-138323-2 - DL	ARTESIA-MW12-10122016	74	84	78	103
600-138323-3	ARTESIA-MW17C-10122016	65	71	73	101
600-138323-3	ARTESIA-MW17C-10122016	68	74	78	107
600-138323-4	ARTESIA-MW8-10122016	70	71	82	100
600-138323-4	ARTESIA-MW8-10122016	76	75	81	105
600-138323-5	ARTESIA-MW11-10122016	70	79	82	104
600-138323-5 MS	ARTESIA-MW11-10122016	67	79	83	91
600-138323-5 MSD	ARTESIA-MW11-10122016	68	83	82	89
600-138323-6	ARTESIA-MW18-10122016	75	73	80	102
600-138323-7	ARTESIA-MW20-10122016	76	73	79	98
600-138323-8	ARTESIA-MW21-10122016	75	74	80	102
600-138323-9	ARTESIA-MW31-10122016	75	72	82	105
600-138323-10	ARTESIA-MW22-10122016	72	75	82	104
600-138323-11	ARTESIA-MW25-10122016	80	75	83	98
600-138323-12	ARTESIA-MW26-10122016	77	74	85	102
600-138323-13	ARTESIA-MW28-10122016	68	75	79	102
600-138323-13 MS	ARTESIA-MW28-10122016	73	78	87	88
600-138323-13 MSD	ARTESIA-MW28-10122016	72	84	86	89
600-138323-14	ARTESIA-MW34-10122016	75	69	85	85
600-138323-14 MS	ARTESIA-MW34-10122016	75	76	78	83
600-138323-14 MSD	ARTESIA-MW34-10122016	72	77	82	85
600-138323-15	ARTESIA-MW29-10122016	73	70	81	89
600-138323-16	ARTESIA-MW30-10122016	73	69	83	87
600-138323-17	ARTESIA-TB01-10122016	69	79	76	109
600-138323-18	ARTESIA-MW32-10132016	74	69	83	86
600-138323-19	ARTESIA-MW33-10132016	73	70	81	87
600-138323-20	ARTESIA-INLET-10132016	80	80	88	100
600-138323-21	ARTESIA-MIDDLE-10132016	79	78	85	100
600-138323-22	ARTESIA-EFFLUENT-10132016	79	77	85	99
600-138323-23	ARTESIA-MD18-10122016	81	77	88	98
600-138323-24	ARTESIA-MD30-10122016	82	74	89	97
LCS 600-199231/3	Lab Control Sample	75	84	83	94
LCS 600-199311/3	Lab Control Sample	67	83	80	92
LCS 600-199328/4	Lab Control Sample	71	84	82	89
LCSD 600-199231/4	Lab Control Sample Dup	76	82	85	94
LCSD 600-199311/4	Lab Control Sample Dup	69	82	80	92
LCSD 600-199328/5	Lab Control Sample Dup	75	85	83	91
MB 600-199231/6	Method Blank	80	79	87	107
MB 600-199311/6	Method Blank	73	81	81	105
MB 600-199328/7	Method Blank	72	72	80	87

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-199231/6
Matrix: Water
Analysis Batch: 199231

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	0.000168	U	0.00100	0.000168	mg/L			10/21/16 11:38	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/21/16 11:38	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/21/16 11:38	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/21/16 11:38	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/21/16 11:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*50 - 134*		*10/21/16 11:38*	*1*
4-Bromofluorobenzene	*79*		*67 - 139*		*10/21/16 11:38*	*1*
Dibromofluoromethane	*87*		*62 - 130*		*10/21/16 11:38*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*10/21/16 11:38*	*1*

Lab Sample ID: LCS 600-199231/3
Matrix: Water
Analysis Batch: 199231

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	0.0100	0.009523		mg/L		95	70 - 140
1,1-Dichloroethene	0.0100	0.01068		mg/L		107	58 - 148
Benzene	0.0100	0.009778		mg/L		98	70 - 130
Naphthalene	0.0100	0.008543		mg/L		85	10 - 150
Tetrachloroethene	0.0100	0.01017		mg/L		102	47 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*75*		*50 - 134*
4-Bromofluorobenzene	*84*		*67 - 139*
Dibromofluoromethane	*83*		*62 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 600-199231/4
Matrix: Water
Analysis Batch: 199231

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	0.0100	0.009350		mg/L		93	70 - 140	2	20
1,1-Dichloroethene	0.0100	0.009830		mg/L		98	58 - 148	8	20
Benzene	0.0100	0.009391		mg/L		94	70 - 130	4	20
Naphthalene	0.0100	0.008353		mg/L		84	10 - 150	2	20
Tetrachloroethene	0.0100	0.009978		mg/L		100	47 - 150	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*76*		*50 - 134*
4-Bromofluorobenzene	*82*		*67 - 139*
Dibromofluoromethane	*85*		*62 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-138323-5 MS — **Client Sample ID: ARTESIA-MW11-10122016**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 199231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.00548	F1	0.0100	0.01534		mg/L		99	70 - 140
1,1-Dichloroethene	0.000192	U	0.0100	0.01025		mg/L		103	58 - 148
Benzene	0.000176	U	0.0100	0.009478		mg/L		95	70 - 130
Naphthalene	0.000129	U	0.0100	0.007783		mg/L		78	10 - 150
Tetrachloroethene	0.000898	J	0.0100	0.01061		mg/L		97	47 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*67*		*50 - 134*
4-Bromofluorobenzene	*79*		*67 - 139*
Dibromofluoromethane	*83*		*62 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*

Lab Sample ID: 600-138323-5 MSD — **Client Sample ID: ARTESIA-MW11-10122016**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 199231

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.00548	F1	0.0100	0.01195	F1	mg/L		65	70 - 140	25	30
1,1-Dichloroethene	0.000192	U	0.0100	0.01021		mg/L		102	58 - 148	0	30
Benzene	0.000176	U	0.0100	0.009799		mg/L		98	70 - 130	3	30
Naphthalene	0.000129	U	0.0100	0.008818		mg/L		88	10 - 150	12	30
Tetrachloroethene	0.000898	J	0.0100	0.01036		mg/L		95	47 - 150	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*68*		*50 - 134*
4-Bromofluorobenzene	*83*		*67 - 139*
Dibromofluoromethane	*82*		*62 - 130*
Toluene-d8 (Surr)	*89*		*70 - 130*

Lab Sample ID: MB 600-199311/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 199311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			10/22/16 11:16	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/22/16 11:16	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 11:16	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/22/16 11:16	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/22/16 11:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*73*		*50 - 134*		*10/22/16 11:16*	*1*
4-Bromofluorobenzene	*81*		*67 - 139*		*10/22/16 11:16*	*1*
Dibromofluoromethane	*81*		*62 - 130*		*10/22/16 11:16*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/22/16 11:16*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-199311/3
Matrix: Water
Analysis Batch: 199311

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			0.0100	0.009701		mg/L		97	70 - 140		
1,1-Dichloroethene			0.0100	0.01028		mg/L		103	58 - 148		
Benzene			0.0100	0.009737		mg/L		97	70 - 130		
Naphthalene			0.0100	0.007889		mg/L		79	10 - 150		
Tetrachloroethene			0.0100	0.01032		mg/L		103	47 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*67*		*50 - 134*
4-Bromofluorobenzene	*83*		*67 - 139*
Dibromofluoromethane	*80*		*62 - 130*
Toluene-d8 (Surr)	*92*		*70 - 130*

Lab Sample ID: LCSD 600-199311/4
Matrix: Water
Analysis Batch: 199311

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			0.0100	0.009401		mg/L		94	70 - 140	3	20
1,1-Dichloroethene			0.0100	0.01002		mg/L		100	58 - 148	3	20
Benzene			0.0100	0.009807		mg/L		98	70 - 130	1	20
Naphthalene			0.0100	0.008695		mg/L		87	10 - 150	10	20
Tetrachloroethene			0.0100	0.009851		mg/L		99	47 - 150	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*69*		*50 - 134*
4-Bromofluorobenzene	*82*		*67 - 139*
Dibromofluoromethane	*80*		*62 - 130*
Toluene-d8 (Surr)	*92*		*70 - 130*

Lab Sample ID: 600-138323-13 MS
Matrix: Water
Analysis Batch: 199311

Client Sample ID: ARTESIA-MW28-10122016
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethane	0.00549		0.0100	0.01456		mg/L		91	70 - 140		
1,1-Dichloroethene	0.0120		0.0100	0.02057		mg/L		86	58 - 148		
Benzene	0.000176	U	0.0100	0.01011		mg/L		101	70 - 130		
Naphthalene	0.000129	U	0.0100	0.007166		mg/L		72	10 - 150		
Tetrachloroethene	0.0175		0.0100	0.02373		mg/L		62	47 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*73*		*50 - 134*
4-Bromofluorobenzene	*78*		*67 - 139*
Dibromofluoromethane	*87*		*62 - 130*
Toluene-d8 (Surr)	*88*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-138323-13 MSD
Matrix: Water
Analysis Batch: 199311

Client Sample ID: ARTESIA-MW28-10122016
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-Dichloroethane	0.00549		0.0100	0.01471		mg/L		92	70 - 140	1	30
1,1-Dichloroethene	0.0120		0.0100	0.02131		mg/L		93	58 - 148	4	30
Benzene	0.000176	U	0.0100	0.009613		mg/L		96	70 - 130	5	30
Naphthalene	0.000129	U	0.0100	0.008579		mg/L		86	10 - 150	18	30
Tetrachloroethene	0.0175		0.0100	0.02527		mg/L		77	47 - 150	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*72*		*50 - 134*
4-Bromofluorobenzene	*84*		*67 - 139*
Dibromofluoromethane	*86*		*62 - 130*
Toluene-d8 (Surr)	*89*		*70 - 130*

Lab Sample ID: MB 600-199328/7
Matrix: Water
Analysis Batch: 199328

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	0.000168	U	0.00100	0.000168	mg/L			10/22/16 13:43	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			10/22/16 13:43	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			10/22/16 13:43	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			10/22/16 13:43	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			10/22/16 13:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*72*		*50 - 134*		*10/22/16 13:43*	*1*
4-Bromofluorobenzene	*72*		*67 - 139*		*10/22/16 13:43*	*1*
Dibromofluoromethane	*80*		*62 - 130*		*10/22/16 13:43*	*1*
Toluene-d8 (Surr)	*87*		*70 - 130*		*10/22/16 13:43*	*1*

Lab Sample ID: LCS 600-199328/4
Matrix: Water
Analysis Batch: 199328

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			0.0100	0.009674		mg/L		97	70 - 140		
1,1-Dichloroethene			0.0100	0.01029		mg/L		103	58 - 148		
Benzene			0.0100	0.009762		mg/L		98	70 - 130		
Naphthalene			0.0100	0.01000		mg/L		100	10 - 150		
Tetrachloroethene			0.0100	0.01060		mg/L		106	47 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*71*		*50 - 134*
4-Bromofluorobenzene	*84*		*67 - 139*
Dibromofluoromethane	*82*		*62 - 130*
Toluene-d8 (Surr)	*89*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-199328/5
Matrix: Water
Analysis Batch: 199328

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			0.0100	0.009251		mg/L		93	70 - 140	4	20
1,1-Dichloroethene			0.0100	0.009275		mg/L		93	58 - 148	10	20
Benzene			0.0100	0.008947		mg/L		89	70 - 130	9	20
Naphthalene			0.0100	0.007832	*	mg/L		78	10 - 150	24	20
Tetrachloroethene			0.0100	0.009944		mg/L		99	47 - 150	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*75*		*50 - 134*
4-Bromofluorobenzene	*85*		*67 - 139*
Dibromofluoromethane	*83*		*62 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*

Lab Sample ID: 600-138323-14 MS
Matrix: Water
Analysis Batch: 199328

Client Sample ID: ARTESIA-MW34-10122016
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.00200		0.0100	0.01127		mg/L		93	70 - 140
1,1-Dichloroethene	0.00694		0.0100	0.01545		mg/L		85	58 - 148
Benzene	0.000176	U	0.0100	0.009304		mg/L		93	70 - 130
Naphthalene	0.000129	U *	0.0100	0.006823		mg/L		68	10 - 150
Tetrachloroethene	0.00505		0.0100	0.01481		mg/L		98	47 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*75*		*50 - 134*
4-Bromofluorobenzene	*76*		*67 - 139*
Dibromofluoromethane	*78*		*62 - 130*
Toluene-d8 (Surr)	*83*		*70 - 130*

Lab Sample ID: 600-138323-14 MSD
Matrix: Water
Analysis Batch: 199328

Client Sample ID: ARTESIA-MW34-10122016
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-Dichloroethane	0.00200		0.0100	0.01114		mg/L		91	70 - 140	1	30
1,1-Dichloroethene	0.00694		0.0100	0.01612		mg/L		92	58 - 148	4	30
Benzene	0.000176	U	0.0100	0.008998		mg/L		90	70 - 130	3	30
Naphthalene	0.000129	U *	0.0100	0.006300		mg/L		63	10 - 150	8	30
Tetrachloroethene	0.00505		0.0100	0.01507		mg/L		100	47 - 150	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*72*		*50 - 134*
4-Bromofluorobenzene	*77*		*67 - 139*
Dibromofluoromethane	*82*		*62 - 130*
Toluene-d8 (Surr)	*85*		*70 - 130*

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 560-132922/1-A
Matrix: Water
Analysis Batch: 133008

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 132922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:30	10/20/16 17:48	1

Lab Sample ID: LCS 560-132922/2-A
Matrix: Water
Analysis Batch: 133008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 132922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	2.50	2.313		mg/L		93	80 - 120

Lab Sample ID: MB 560-132923/1-A
Matrix: Water
Analysis Batch: 133008

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 132923

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		10/19/16 10:40	10/20/16 20:33	1

Lab Sample ID: LCS 560-132923/2-A
Matrix: Water
Analysis Batch: 133008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 132923

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	2.50	2.282		mg/L		91	80 - 120

Lab Sample ID: 600-138323-13 MS
Matrix: Water
Analysis Batch: 133008

Client Sample ID: ARTESIA-MW28-10122016
Prep Type: Dissolved
Prep Batch: 132922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	0.0116	U	2.50	2.234		mg/L		89	80 - 120

Lab Sample ID: 600-138323-13 MSD
Matrix: Water
Analysis Batch: 133008

Client Sample ID: ARTESIA-MW28-10122016
Prep Type: Dissolved
Prep Batch: 132922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese, Dissolved	0.0116	U	2.50	2.350		mg/L		94	80 - 120	5	20

Lab Sample ID: 600-138323-14 MS
Matrix: Water
Analysis Batch: 133008

Client Sample ID: ARTESIA-MW34-10122016
Prep Type: Dissolved
Prep Batch: 132923

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	0.0116	U	2.50	2.182		mg/L		87	80 - 120

Lab Sample ID: 600-138323-14 MSD
Matrix: Water
Analysis Batch: 133008

Client Sample ID: ARTESIA-MW34-10122016
Prep Type: Dissolved
Prep Batch: 132923

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese, Dissolved	0.0116	U	2.50	2.418		mg/L		97	80 - 120	10	20

GC/MS VOA

Analysis Batch: 199231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-138323-1	ARTESIA-MW15-10122016	Total/NA	Water	8260B	
600-138323-2	ARTESIA-MW12-10122016	Total/NA	Water	8260B	
600-138323-3	ARTESIA-MW17C-10122016	Total/NA	Water	8260B	
600-138323-4	ARTESIA-MW8-10122016	Total/NA	Water	8260B	
600-138323-5	ARTESIA-MW11-10122016	Total/NA	Water	8260B	
600-138323-6	ARTESIA-MW18-10122016	Total/NA	Water	8260B	
600-138323-7	ARTESIA-MW20-10122016	Total/NA	Water	8260B	
600-138323-8	ARTESIA-MW21-10122016	Total/NA	Water	8260B	
MB 600-199231/6	Method Blank	Total/NA	Water	8260B	
LCS 600-199231/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-199231/4	Lab Control Sample Dup	Total/NA	Water	8260B	
600-138323-5 MS	ARTESIA-MW11-10122016	Total/NA	Water	8260B	
600-138323-5 MSD	ARTESIA-MW11-10122016	Total/NA	Water	8260B	

Analysis Batch: 199311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-138323-1	ARTESIA-MW15-10122016	Total/NA	Water	8260B	
600-138323-2 - DL	ARTESIA-MW12-10122016	Total/NA	Water	8260B	
600-138323-3	ARTESIA-MW17C-10122016	Total/NA	Water	8260B	
600-138323-4	ARTESIA-MW8-10122016	Total/NA	Water	8260B	
600-138323-9	ARTESIA-MW31-10122016	Total/NA	Water	8260B	
600-138323-10	ARTESIA-MW22-10122016	Total/NA	Water	8260B	
600-138323-11	ARTESIA-MW25-10122016	Total/NA	Water	8260B	
600-138323-12	ARTESIA-MW26-10122016	Total/NA	Water	8260B	
600-138323-13	ARTESIA-MW28-10122016	Total/NA	Water	8260B	
600-138323-17	ARTESIA-TB01-10122016	Total/NA	Water	8260B	
600-138323-20	ARTESIA-INLET-10132016	Total/NA	Water	8260B	
600-138323-21	ARTESIA-MIDDLE-10132016	Total/NA	Water	8260B	
600-138323-22	ARTESIA-EFFLUENT-10132016	Total/NA	Water	8260B	
600-138323-23	ARTESIA-MD18-10122016	Total/NA	Water	8260B	
600-138323-24	ARTESIA-MD30-10122016	Total/NA	Water	8260B	
MB 600-199311/6	Method Blank	Total/NA	Water	8260B	
LCS 600-199311/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-199311/4	Lab Control Sample Dup	Total/NA	Water	8260B	
600-138323-13 MS	ARTESIA-MW28-10122016	Total/NA	Water	8260B	
600-138323-13 MSD	ARTESIA-MW28-10122016	Total/NA	Water	8260B	

Analysis Batch: 199328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-138323-14	ARTESIA-MW34-10122016	Total/NA	Water	8260B	
600-138323-15	ARTESIA-MW29-10122016	Total/NA	Water	8260B	
600-138323-16	ARTESIA-MW30-10122016	Total/NA	Water	8260B	
600-138323-18	ARTESIA-MW32-10132016	Total/NA	Water	8260B	
600-138323-19	ARTESIA-MW33-10132016	Total/NA	Water	8260B	
MB 600-199328/7	Method Blank	Total/NA	Water	8260B	
LCS 600-199328/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-199328/5	Lab Control Sample Dup	Total/NA	Water	8260B	
600-138323-14 MS	ARTESIA-MW34-10122016	Total/NA	Water	8260B	
600-138323-14 MSD	ARTESIA-MW34-10122016	Total/NA	Water	8260B	

Metals

Prep Batch: 132922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-138323-6	ARTESIA-MW18-10122016	Dissolved	Water	3010A	
600-138323-8	ARTESIA-MW21-10122016	Dissolved	Water	3010A	
600-138323-9	ARTESIA-MW31-10122016	Dissolved	Water	3010A	
600-138323-10	ARTESIA-MW22-10122016	Dissolved	Water	3010A	
600-138323-11	ARTESIA-MW25-10122016	Dissolved	Water	3010A	
600-138323-12	ARTESIA-MW26-10122016	Dissolved	Water	3010A	
600-138323-13	ARTESIA-MW28-10122016	Dissolved	Water	3010A	
600-138323-15	ARTESIA-MW29-10122016	Dissolved	Water	3010A	
600-138323-16	ARTESIA-MW30-10122016	Dissolved	Water	3010A	
600-138323-18	ARTESIA-MW32-10132016	Dissolved	Water	3010A	
600-138323-20	ARTESIA-INLET-10132016	Dissolved	Water	3010A	
600-138323-21	ARTESIA-MIDDLE-10132016	Dissolved	Water	3010A	
600-138323-22	ARTESIA-EFFLUENT-10132016	Dissolved	Water	3010A	
600-138323-23	ARTESIA-MD18-10122016	Dissolved	Water	3010A	
MB 560-132922/1-A	Method Blank	Total/NA	Water	3010A	
LCS 560-132922/2-A	Lab Control Sample	Total/NA	Water	3010A	
600-138323-13 MS	ARTESIA-MW28-10122016	Dissolved	Water	3010A	
600-138323-13 MSD	ARTESIA-MW28-10122016	Dissolved	Water	3010A	

Prep Batch: 132923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-138323-14	ARTESIA-MW34-10122016	Dissolved	Water	3010A	
600-138323-24	ARTESIA-MD30-10122016	Dissolved	Water	3010A	
MB 560-132923/1-A	Method Blank	Total/NA	Water	3010A	
LCS 560-132923/2-A	Lab Control Sample	Total/NA	Water	3010A	
600-138323-14 MS	ARTESIA-MW34-10122016	Dissolved	Water	3010A	
600-138323-14 MSD	ARTESIA-MW34-10122016	Dissolved	Water	3010A	

Analysis Batch: 133008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-138323-6	ARTESIA-MW18-10122016	Dissolved	Water	6020	132922
600-138323-8	ARTESIA-MW21-10122016	Dissolved	Water	6020	132922
600-138323-9	ARTESIA-MW31-10122016	Dissolved	Water	6020	132922
600-138323-10	ARTESIA-MW22-10122016	Dissolved	Water	6020	132922
600-138323-11	ARTESIA-MW25-10122016	Dissolved	Water	6020	132922
600-138323-12	ARTESIA-MW26-10122016	Dissolved	Water	6020	132922
600-138323-13	ARTESIA-MW28-10122016	Dissolved	Water	6020	132922
600-138323-14	ARTESIA-MW34-10122016	Dissolved	Water	6020	132923
600-138323-15	ARTESIA-MW29-10122016	Dissolved	Water	6020	132922
600-138323-16	ARTESIA-MW30-10122016	Dissolved	Water	6020	132922
600-138323-18	ARTESIA-MW32-10132016	Dissolved	Water	6020	132922
600-138323-20	ARTESIA-INLET-10132016	Dissolved	Water	6020	132922
600-138323-21	ARTESIA-MIDDLE-10132016	Dissolved	Water	6020	132922
600-138323-22	ARTESIA-EFFLUENT-10132016	Dissolved	Water	6020	132922
600-138323-23	ARTESIA-MD18-10122016	Dissolved	Water	6020	132922
600-138323-24	ARTESIA-MD30-10122016	Dissolved	Water	6020	132923
MB 560-132922/1-A	Method Blank	Total/NA	Water	6020	132922
MB 560-132923/1-A	Method Blank	Total/NA	Water	6020	132923
LCS 560-132922/2-A	Lab Control Sample	Total/NA	Water	6020	132922
LCS 560-132923/2-A	Lab Control Sample	Total/NA	Water	6020	132923
600-138323-13 MS	ARTESIA-MW28-10122016	Dissolved	Water	6020	132922

Metals (Continued)

Analysis Batch: 133008 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-138323-13 MSD	ARTESIA-MW28-10122016	Dissolved	Water	6020	132922
600-138323-14 MS	ARTESIA-MW34-10122016	Dissolved	Water	6020	132923
600-138323-14 MSD	ARTESIA-MW34-10122016	Dissolved	Water	6020	132923

Client Sample ID: ARTESIA-MW15-10122016
Lab Sample ID: 600-138323-1
Date Collected: 10/12/16 10:30
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199231	10/21/16 16:51	WS1	TAL HOU
Total/NA	Analysis	8260B		1	199311	10/22/16 14:53	WS1	TAL HOU

Client Sample ID: ARTESIA-MW12-10122016
Lab Sample ID: 600-138323-2
Date Collected: 10/12/16 11:00
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199231	10/21/16 16:27	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	20	199311	10/22/16 16:30	WS1	TAL HOU

Client Sample ID: ARTESIA-MW17C-10122016
Lab Sample ID: 600-138323-3
Date Collected: 10/12/16 11:20
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199231	10/21/16 17:15	WS1	TAL HOU
Total/NA	Analysis	8260B		1	199311	10/22/16 12:03	WS1	TAL HOU

Client Sample ID: ARTESIA-MW8-10122016
Lab Sample ID: 600-138323-4
Date Collected: 10/12/16 12:00
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199231	10/21/16 17:39	WS1	TAL HOU
Total/NA	Analysis	8260B		1	199311	10/22/16 12:27	WS1	TAL HOU

Client Sample ID: ARTESIA-MW11-10122016
Lab Sample ID: 600-138323-5
Date Collected: 10/12/16 12:40
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199231	10/21/16 16:03	WS1	TAL HOU

Client Sample ID: ARTESIA-MW18-10122016
Lab Sample ID: 600-138323-6
Date Collected: 10/12/16 13:00
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199231	10/21/16 18:03	WS1	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC

Client Sample ID: ARTESIA-MW18-10122016
Lab Sample ID: 600-138323-6
Date Collected: 10/12/16 13:00
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6020		1	133008	10/20/16 18:52	JEM	TAL CC

Client Sample ID: ARTESIA-MW20-10122016
Lab Sample ID: 600-138323-7
Date Collected: 10/12/16 13:30
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199231	10/21/16 18:27	WS1	TAL HOU

Client Sample ID: ARTESIA-MW21-10122016
Lab Sample ID: 600-138323-8
Date Collected: 10/12/16 14:00
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199231	10/21/16 18:50	WS1	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 18:58	JEM	TAL CC

Client Sample ID: ARTESIA-MW31-10122016
Lab Sample ID: 600-138323-9
Date Collected: 10/12/16 14:15
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 13:18	WS1	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 19:04	JEM	TAL CC

Client Sample ID: ARTESIA-MW22-10122016
Lab Sample ID: 600-138323-10
Date Collected: 10/12/16 14:30
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 13:41	WS1	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 19:10	JEM	TAL CC

Client Sample ID: ARTESIA-MW25-10122016
Lab Sample ID: 600-138323-11
Date Collected: 10/12/16 14:50
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 14:05	WS1	TAL HOU

Client Sample ID: ARTESIA-MW25-10122016
Lab Sample ID: 600-138323-11
Date Collected: 10/12/16 14:50
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 19:15	JEM	TAL CC

Client Sample ID: ARTESIA-MW26-10122016
Lab Sample ID: 600-138323-12
Date Collected: 10/12/16 15:00
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 14:29	WS1	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 19:21	JEM	TAL CC

Client Sample ID: ARTESIA-MW28-10122016
Lab Sample ID: 600-138323-13
Date Collected: 10/12/16 15:30
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 12:51	WS1	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 18:04	JEM	TAL CC

Client Sample ID: ARTESIA-MW34-10122016
Lab Sample ID: 600-138323-14
Date Collected: 10/12/16 16:00
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199328	10/22/16 17:01	PXS	TAL HOU
Dissolved	Prep	3010A			132923	10/19/16 10:40	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 20:48	JEM	TAL CC

Client Sample ID: ARTESIA-MW29-10122016
Lab Sample ID: 600-138323-15
Date Collected: 10/12/16 16:30
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199328	10/22/16 15:08	PXS	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 19:27	JEM	TAL CC

Client Sample ID: ARTESIA-MW30-10122016 — Lab Sample ID: 600-138323-16

Date Collected: 10/12/16 17:00 — **Matrix: Water**
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199328	10/22/16 15:36	PXS	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 19:33	JEM	TAL CC

Client Sample ID: ARTESIA-TB01-10122016 — Lab Sample ID: 600-138323-17

Date Collected: 10/12/16 08:00 — **Matrix: Water**
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 11:40	WS1	TAL HOU

Client Sample ID: ARTESIA-MW32-10132016 — Lab Sample ID: 600-138323-18

Date Collected: 10/13/16 09:00 — **Matrix: Water**
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199328	10/22/16 16:04	PXS	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 19:38	JEM	TAL CC

Client Sample ID: ARTESIA-MW33-10132016 — Lab Sample ID: 600-138323-19

Date Collected: 10/13/16 09:45 — **Matrix: Water**
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199328	10/22/16 16:33	PXS	TAL HOU

Client Sample ID: ARTESIA-INLET-10132016 — Lab Sample ID: 600-138323-20

Date Collected: 10/13/16 08:15 — **Matrix: Water**
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 15:17	WS1	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 19:44	JEM	TAL CC

Client Sample ID: ARTESIA-MIDDLE-10132016 — Lab Sample ID: 600-138323-21

Date Collected: 10/13/16 08:20 — **Matrix: Water**
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 17:18	WS1	TAL HOU

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-138323-1

Client Sample ID: ARTESIA-MIDDLE-10132016
Lab Sample ID: 600-138323-21
Date Collected: 10/13/16 08:20
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 20:16	JEM	TAL CC

Client Sample ID: ARTESIA-EFFLUENT-10132016
Lab Sample ID: 600-138323-22
Date Collected: 10/13/16 08:25
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 17:42	WS1	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 20:22	JEM	TAL CC

Client Sample ID: ARTESIA-MD18-10122016
Lab Sample ID: 600-138323-23
Date Collected: 10/12/16 13:00
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 18:06	WS1	TAL HOU
Dissolved	Prep	3010A			132922	10/19/16 10:30	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 20:27	JEM	TAL CC

Client Sample ID: ARTESIA-MD30-10122016
Lab Sample ID: 600-138323-24
Date Collected: 10/12/16 17:00
Matrix: Water
Date Received: 10/14/16 10:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	199311	10/22/16 18:30	WS1	TAL HOU
Dissolved	Prep	3010A			132923	10/19/16 10:40	HHB	TAL CC
Dissolved	Analysis	6020		1	133008	10/20/16 21:49	JEM	TAL CC

Laboratory References:

TAL CC = TestAmerica Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Default Detection Limits

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-138323-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	RL	MDL	Units	Method
1,1-Dichloroethane	0.00100	0.000168	mg/L	8260B
1,1-Dichloroethene	0.00100	0.000192	mg/L	8260B
Benzene	0.00100	0.000176	mg/L	8260B
Naphthalene	0.00200	0.000129	mg/L	8260B
Tetrachloroethene	0.00100	0.000333	mg/L	8260B

Method: 6020 - Metals (ICP/MS) - Dissolved

Prep: 3010A

Analyte	RL	MDL	Units	Method
Manganese, Dissolved	0.0500	0.0116	mg/L	6020

Certification Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia Groundwater

TestAmerica Job ID: 600-138323-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	16-046-0	08-04-17
Louisiana	NELAP	6	01967	06-30-17
Oklahoma	State Program	6	2015-050	08-31-17
Texas	NELAP	6	T104704223-16-19	10-31-16 *
USDA	Federal		P330-14-00192	06-06-17

Laboratory: TestAmerica Corpus Christi

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	2015-119	08-31-17
Texas	NELAP	6	T104704210-16-18	03-31-17
USDA	Federal		P330-14-00328	09-30-17

* Certification renewal pending - certification considered valid.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS06 Analysis Batch Number: 198309

Lab Sample ID: IC 600-198309/3 Client Sample ID:

Date Analyzed: 10/07/16 12:34 Lab File ID: J28101.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	4.04	Incomplete Integration	velak	10/07/16 15:01
Chloroethane	5.12	Incomplete Integration	velak	10/07/16 15:01
Dichlorofluoromethane	5.17	Incomplete Integration	velak	10/07/16 15:01
Acetone	5.80	Incomplete Integration	velak	10/07/16 15:01
Ethyl ether	5.89	Incomplete Integration	velak	10/07/16 15:01
1,1-Dichloroethene	6.18	Incomplete Integration	velak	10/07/16 15:01
t-Butanol	6.18	Incomplete Integration	velak	10/07/16 15:01
Acrylonitrile	6.21	Incomplete Integration	velak	10/07/16 15:01
Methyl acetate	6.31	Incomplete Integration	velak	10/07/16 15:01
Carbon disulfide	6.54	Incomplete Integration	velak	10/07/16 15:01
trans-1,2-Dichloroethene	6.85	Incomplete Integration	velak	10/07/16 15:01
Propionitrile	7.05	Incomplete Integration	velak	10/07/16 15:01
2-Butanone (MEK)	7.38	Incomplete Integration	velak	10/07/16 15:01
Methacrylonitrile	7.46	Incomplete Integration	velak	10/07/16 15:01
Dibromofluoromethane	7.77	Incomplete Integration	velak	10/07/16 15:01
Tetrahydrofuran	7.94	Incomplete Integration	velak	10/07/16 15:01
n-Butanol	8.29	Incomplete Integration	velak	10/07/16 15:01
Ethyl acrylate	8.92	Incomplete Integration	velak	10/07/16 15:01
Bromodichloromethane	9.11	Incomplete Integration	velak	10/07/16 15:01
cis-1,3-Dichloropropene	9.62	Incomplete Integration	velak	10/07/16 15:01
trans-1,3-Dichloropropene	9.99	Incomplete Integration	velak	10/07/16 15:01
n-Butyl acetate	10.11	Incomplete Integration	velak	10/07/16 15:01
1,1,2-Trichloroethane	10.16	Incomplete Integration	velak	10/07/16 15:01
Ethyl methacrylate	10.32	Incomplete Integration	velak	10/07/16 15:01
Bromoform	12.36	Incomplete Integration	velak	10/07/16 15:01
1,2,3-Trichloropropane	12.76	Incomplete Integration	velak	10/07/16 15:01
trans-1,4-Dichloro-2-butene	12.77	Incomplete Integration	velak	10/07/16 15:01

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS06 Analysis Batch Number: 198309

Lab Sample ID: IC 600-198309/4 Client Sample ID:

Date Analyzed: 10/07/16 13:03 Lab File ID: J28102.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	4.27	Incomplete Integration	velak	10/07/16 15:06
Acrolein	5.67	Incomplete Integration	velak	10/07/16 15:06
Acetone	5.81	Incomplete Integration	velak	10/07/16 16:04
1,1-Dichloroethene	6.17	Incomplete Integration	velak	10/07/16 15:06
2-Butanone (MEK)	7.38	Incomplete Integration	velak	10/07/16 15:06
Dibromofluoromethane	7.76	Incomplete Integration	velak	10/07/16 15:06
Tetrahydrofuran	7.93	Incomplete Integration	velak	10/07/16 15:06
1,2-Dichloroethane-d4 (Surr)	8.11	Incomplete Integration	velak	10/07/16 15:06
n-Butanol	8.27	Incomplete Integration	velak	10/07/16 15:06
1,4-Dioxane	9.21	Incomplete Integration	velak	10/07/16 15:06
2-Chloroethyl vinyl ether	9.40	Incomplete Integration	velak	10/07/16 15:06
4-Methyl-2-pentanone (MIBK)	9.69	Incomplete Integration	velak	10/07/16 15:06
Dibromochloromethane	10.70	Incomplete Integration	velak	10/07/16 15:06
1,2-Dibromoethane	10.95	Incomplete Integration	velak	10/07/16 15:06
1,2,3-Trichloropropane	12.75	Incomplete Integration	velak	10/07/16 15:06
Naphthalene	16.99	Incomplete Integration	velak	10/07/16 15:06
1,2,3-Trichlorobenzene	17.24	Incomplete Integration	velak	10/07/16 15:06

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS06 Analysis Batch Number: 198309

Lab Sample ID: IC 600-198309/5 Client Sample ID:

Date Analyzed: 10/07/16 13:31 Lab File ID: J28103.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	5.68	Incomplete Integration	velak	10/07/16 15:08
Acetone	5.80	Incomplete Integration	velak	10/07/16 16:04
1,1-Dichloroethene	6.17	Incomplete Integration	velak	10/07/16 15:08
1,1,2-Trichloro-1,2,2-trifluoroethane	6.33	Incomplete Integration	velak	10/07/16 15:08
2-Butanone (MEK)	7.38	Incomplete Integration	velak	10/07/16 15:08
n-Butanol	8.27	Incomplete Integration	velak	10/07/16 15:08
1,4-Dioxane	9.20	Incomplete Integration	velak	10/07/16 15:08
Naphthalene	16.99	Incomplete Integration	velak	10/07/16 15:15
1,2,3-Trichlorobenzene	17.23	Incomplete Integration	velak	10/07/16 15:15

Lab Sample ID: IC 600-198309/6 Client Sample ID:

Date Analyzed: 10/07/16 14:00 Lab File ID: J28104.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	4.04	Incomplete Integration	velak	10/07/16 15:17
Acrolein	5.68	Incomplete Integration	velak	10/07/16 15:17
Acetone	5.78	Incomplete Integration	velak	10/07/16 15:17
Tetrahydrofuran	7.94	Incomplete Integration	velak	10/07/16 15:17
1,4-Dioxane	9.21	Incomplete Integration	velak	10/07/16 15:17
1,2,3-Trichlorobenzene	17.23	Incomplete Integration	velak	10/07/16 15:19

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS06 Analysis Batch Number: 198309

Lab Sample ID: ICIS 600-198309/7 Client Sample ID:

Date Analyzed: 10/07/16 14:28 Lab File ID: J28105.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	4.04	Incomplete Integration	velak	10/07/16 14:55
Acetone	5.78	Baseline	velak	10/07/16 16:04
1,4-Dioxane	9.21	Incomplete Integration	velak	10/07/16 14:55

Lab Sample ID: IC 600-198309/8 Client Sample ID:

Date Analyzed: 10/07/16 14:57 Lab File ID: J28106.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	9.20	Incomplete Integration	velak	10/07/16 15:22

Lab Sample ID: IC 600-198309/9 Client Sample ID:

Date Analyzed: 10/07/16 15:25 Lab File ID: J28107.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	5.78	Baseline	velak	10/07/16 16:06

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS06 Analysis Batch Number: 199328

Lab Sample ID: CCVIS 600-199328/3 Client Sample ID:

Date Analyzed: 10/22/16 11:36 Lab File ID: J29601.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	5.78	Missed Peak	velak	10/22/16 11:59
1,4-Dioxane	9.18	Incomplete Integration	velak	10/22/16 11:59
Naphthalene	16.99	Incomplete Integration	velak	10/22/16 11:59
1,2,3-Trichlorobenzene	17.24	Incomplete Integration	velak	10/22/16 11:59

Lab Sample ID: LCS 600-199328/4 Client Sample ID:

Date Analyzed: 10/22/16 12:18 Lab File ID: J29602.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	16.98	Incomplete Integration	velak	10/22/16 13:02

Lab Sample ID: LCSD 600-199328/5 Client Sample ID:

Date Analyzed: 10/22/16 12:46 Lab File ID: J29603.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	16.99	Incomplete Integration	velak	10/22/16 13:24

Lab Sample ID: 600-138323-16 Client Sample ID: ARTESIA-MW30-10122016

Date Analyzed: 10/22/16 15:36 Lab File ID: J29609.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	6.17	Baseline	somjitp	10/24/16 12:37

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS07 Analysis Batch Number: 199119

Lab Sample ID: IC 600-199119/3 Client Sample ID:

Date Analyzed: 10/20/16 10:14 Lab File ID: A29402.d GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	9.05	Baseline	shenw	10/20/16 12:28
2-Chloroethyl vinyl ether	9.28	Baseline	shenw	10/20/16 12:28
trans-1,4-Dichloro-2-butene	12.61	Baseline	shenw	10/20/16 12:28
1,2-Dibromo-3-Chloropropane	15.05	Baseline	shenw	10/20/16 12:28

Lab Sample ID: IC 600-199119/4 Client Sample ID:

Date Analyzed: 10/20/16 10:38 Lab File ID: A29403.d GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	9.03	Baseline	shenw	10/20/16 12:24

Lab Sample ID: ICIS 600-199119/6 Client Sample ID:

Date Analyzed: 10/20/16 11:26 Lab File ID: A29405.d GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene oxide	4.43	Baseline	shenw	10/20/16 12:46
2-Chloroethyl vinyl ether	9.26	Baseline	shenw	10/20/16 12:28
Chlorobenzene-d5	11.60	Baseline	shenw	10/20/16 13:59

Lab Sample ID: IC 600-199119/7 Client Sample ID:

Date Analyzed: 10/20/16 11:50 Lab File ID: A29406.d GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorobenzene-d5	11.60	Baseline	shenw	10/20/16 14:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS07 Analysis Batch Number: 199119

Lab Sample ID: IC 600-199119/8 Client Sample ID:

Date Analyzed: 10/20/16 12:15 Lab File ID: A29407.d GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorobenzene-d5	11.60	Baseline	shenw	10/20/16 14:00

Method 8260B Low Level

Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX 60 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
ARTESIA-MW15-10122016	600-138323-1	74	69	105	73
ARTESIA-MW15-10122016	600-138323-1	85	75	102	68
ARTESIA-MW12-10122016	600-138323-2	75	61	98	77
ARTESIA-MW12-10122016 DL	600-138323-2 DL	78	74	103	84
ARTESIA-MW17C-10122016	600-138323-3	73	65	101	71
ARTESIA-MW17C-10122016	600-138323-3	78	68	107	74
ARTESIA-MW8-10122016	600-138323-4	82	70	100	71
ARTESIA-MW8-10122016	600-138323-4	81	76	105	75
ARTESIA-MW11-10122016	600-138323-5	82	70	104	79
ARTESIA-MW18-10122016	600-138323-6	80	75	102	73
ARTESIA-MW20-10122016	600-138323-7	79	76	98	73
ARTESIA-MW21-10122016	600-138323-8	80	75	102	74
ARTESIA-MW31-10122016	600-138323-9	82	75	105	72
ARTESIA-MW22-10122016	600-138323-10	82	72	104	75
ARTESIA-MW25-10122016	600-138323-11	83	80	98	75
ARTESIA-MW26-10122016	600-138323-12	85	77	102	74
ARTESIA-MW28-10122016	600-138323-13	79	68	102	75
ARTESIA-MW34-10122016	600-138323-14	85	75	85	69
ARTESIA-MW29-10122016	600-138323-15	81	73	89	70
ARTESIA-MW30-10122016	600-138323-16	83	73	87	69
ARTESIA-TB01-10122016	600-138323-17	76	69	109	79
ARTESIA-MW32-10132016	600-138323-18	83	74	86	69
ARTESIA-MW33-10132016	600-138323-19	81	73	87	70
ARTESIA-INLET-10132016	600-138323-20	88	80	100	80

	QC LIMITS
DBFM = Dibromofluoromethane	62-130
DCA = 1,2-Dichloroethane-d4 (Surr)	50-134
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	67-139

Column to be used to flag recovery values

FORM II 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX 60 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
ARTESIA-MIDDLE-101 32016	600-138323-21	85	79	100	78
ARTESIA-EFFLUENT-1 0132016	600-138323-22	85	79	99	77
ARTESIA-MD18-10122 016	600-138323-23	88	81	98	77
ARTESIA-MD30-10122 016	600-138323-24	89	82	97	74
	MB 600-199231/6	87	80	107	79
	MB 600-199311/6	81	73	105	81
	MB 600-199328/7	80	72	87	72
	LCS 600-199231/3	83	75	94	84
	LCS 600-199311/3	80	67	92	83
	LCS 600-199328/4	82	71	89	84
	LCSD 600-199231/4	85	76	94	82
	LCSD 600-199311/4	80	69	92	82
	LCSD 600-199328/5	83	75	91	85
ARTESIA-MW11-10122 016 MS	600-138323-5 MS	83	67	91	79
ARTESIA-MW28-10122 016 MS	600-138323-13 MS	87	73	88	78
ARTESIA-MW34-10122 016 MS	600-138323-14 MS	78	75	83	76
ARTESIA-MW11-10122 016 MSD	600-138323-5 MSD	82	68	89	83
ARTESIA-MW28-10122 016 MSD	600-138323-13 MSD	86	72	89	84
ARTESIA-MW34-10122 016 MSD	600-138323-14 MSD	82	72	85	77

	QC LIMITS
DBFM = Dibromofluoromethane	62-130
DCA = 1,2-Dichloroethane-d4 (Surr)	50-134
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	67-139

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A29502a.d

Lab ID: LCS 600-199231/3 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.009523	95	70-140	
1,1-Dichloroethene	0.0100	0.01068	107	58-148	
Benzene	0.0100	0.009778	98	70-130	
Naphthalene	0.0100	0.008543	85	10-150	
Tetrachloroethene	0.0100	0.01017	102	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A29602.d

Lab ID: LCS 600-199311/3 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.009701	97	70-140	
1,1-Dichloroethene	0.0100	0.01028	103	58-148	
Benzene	0.0100	0.009737	97	70-130	
Naphthalene	0.0100	0.007889	79	10-150	
Tetrachloroethene	0.0100	0.01032	103	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J29602.D

Lab ID: LCS 600-199328/4 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.009674	97	70-140	
1,1-Dichloroethene	0.0100	0.01029	103	58-148	
Benzene	0.0100	0.009762	98	70-130	
Naphthalene	0.0100	0.01000	100	10-150	
Tetrachloroethene	0.0100	0.01060	106	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A29503.d

Lab ID: LCSD 600-199231/4 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.009350	93	2	20	70-140	
1,1-Dichloroethene	0.0100	0.009830	98	8	20	58-148	
Benzene	0.0100	0.009391	94	4	20	70-130	
Naphthalene	0.0100	0.008353	84	2	20	10-150	
Tetrachloroethene	0.0100	0.009978	100	2	20	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A29603.d

Lab ID: LCSD 600-199311/4 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.009401	94	3	20	70-140	
1,1-Dichloroethene	0.0100	0.01002	100	3	20	58-148	
Benzene	0.0100	0.009807	98	1	20	70-130	
Naphthalene	0.0100	0.008695	87	10	20	10-150	
Tetrachloroethene	0.0100	0.009851	99	5	20	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J29603.D

Lab ID: LCSD 600-199328/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.009251	93	4	20	70-140	
1,1-Dichloroethene	0.0100	0.009275	93	10	20	58-148	
Benzene	0.0100	0.008947	89	9	20	70-130	
Naphthalene	0.0100	0.007832	78	24	20	10-150	*
Tetrachloroethene	0.0100	0.009944	99	6	20	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A29525.d

Lab ID: 600-138323-5 MS Client ID: ARTESIA-MW11-10122016 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.00548	0.01534	99	70-140	
1,1-Dichloroethene	0.0100	0.000192 U	0.01025	103	58-148	
Benzene	0.0100	0.000176 U	0.009478	95	70-130	
Naphthalene	0.0100	0.000129 U	0.007783	78	10-150	
Tetrachloroethene	0.0100	0.000898 J	0.01061	97	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A29617.d

Lab ID: 600-138323-13 MS Client ID: ARTESIA-MW28-10122016 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.00549	0.01456	91	70-140	
1,1-Dichloroethene	0.0100	0.0120	0.02057	86	58-148	
Benzene	0.0100	0.000176 U	0.01011	101	70-130	
Naphthalene	0.0100	0.000129 U	0.007166	72	10-150	
Tetrachloroethene	0.0100	0.0175	0.02373	62	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J29613.D

Lab ID: 600-138323-14 MS Client ID: ARTESIA-MW34-10122016 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.00200	0.01127	93	70-140	
1,1-Dichloroethene	0.0100	0.00694	0.01545	85	58-148	
Benzene	0.0100	0.000176 U	0.009304	93	70-130	
Naphthalene	0.0100	0.000129 U	0.006823	68	10-150	
Tetrachloroethene	0.0100	0.00505	0.01481	98	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A29526.d

Lab ID: 600-138323-5 MSD Client ID: ARTESIA-MW11-10122016 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.01195	65	25	30	70-140	F1
1,1-Dichloroethene	0.0100	0.01021	102	0	30	58-148	
Benzene	0.0100	0.009799	98	3	30	70-130	
Naphthalene	0.0100	0.008818	88	12	30	10-150	
Tetrachloroethene	0.0100	0.01036	95	2	30	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A29618.d

Lab ID: 600-138323-13 MSD Client ID: ARTESIA-MW28-10122016 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.01471	92	1	30	70-140	
1,1-Dichloroethene	0.0100	0.02131	93	4	30	58-148	
Benzene	0.0100	0.009613	96	5	30	70-130	
Naphthalene	0.0100	0.008579	86	18	30	10-150	
Tetrachloroethene	0.0100	0.02527	77	6	30	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J29614.D

Lab ID: 600-138323-14 MSD Client ID: ARTESIA-MW34-10122016 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.01114	91	1	30	70-140	
1,1-Dichloroethene	0.0100	0.01612	92	4	30	58-148	
Benzene	0.0100	0.008998	90	3	30	70-130	
Naphthalene	0.0100	0.006300	63	8	30	10-150	
Tetrachloroethene	0.0100	0.01507	100	2	30	47-150	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab File ID: A29505.d Lab Sample ID: MB 600-199231/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: CHVOAMS07 Date Analyzed: 10/21/2016 11:38

GC Column: DB-VRX 60 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-199231/3	A29502a.d	10/21/2016 10:26
	LCSD 600-199231/4	A29503.d	10/21/2016 10:50
ARTESIA-MW11-10122016	600-138323-5	A29516.d	10/21/2016 16:03
ARTESIA-MW12-10122016	600-138323-2	A29517.d	10/21/2016 16:27
ARTESIA-MW15-10122016	600-138323-1	A29518.d	10/21/2016 16:51
ARTESIA-MW17C-10122016	600-138323-3	A29519.d	10/21/2016 17:15
ARTESIA-MW8-10122016	600-138323-4	A29520.d	10/21/2016 17:39
ARTESIA-MW18-10122016	600-138323-6	A29521.d	10/21/2016 18:03
ARTESIA-MW20-10122016	600-138323-7	A29522.d	10/21/2016 18:27
ARTESIA-MW21-10122016	600-138323-8	A29523.d	10/21/2016 18:50
ARTESIA-MW11-10122016 MS	600-138323-5 MS	A29525.d	10/21/2016 19:38
ARTESIA-MW11-10122016 MSD	600-138323-5 MSD	A29526.d	10/21/2016 20:02

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab File ID: A29605.d Lab Sample ID: MB 600-199311/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: CHVOAMS07 Date Analyzed: 10/22/2016 11:16

GC Column: DB-VRX 60 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-199311/3	A29602.d	10/22/2016 09:58
	LCSD 600-199311/4	A29603.d	10/22/2016 10:21
ARTESIA-TB01-10122016	600-138323-17	A29606.d	10/22/2016 11:40
ARTESIA-MW17C-10122016	600-138323-3	A29607.d	10/22/2016 12:03
ARTESIA-MW8-10122016	600-138323-4	A29608.d	10/22/2016 12:27
ARTESIA-MW28-10122016	600-138323-13	A29609.d	10/22/2016 12:51
ARTESIA-MW31-10122016	600-138323-9	A29610.d	10/22/2016 13:18
ARTESIA-MW22-10122016	600-138323-10	A29612.d	10/22/2016 13:41
ARTESIA-MW25-10122016	600-138323-11	A29613.d	10/22/2016 14:05
ARTESIA-MW26-10122016	600-138323-12	A29614.d	10/22/2016 14:29
ARTESIA-MW15-10122016	600-138323-1	A29615.d	10/22/2016 14:53
ARTESIA-INLET-10132016	600-138323-20	A29616.d	10/22/2016 15:17
ARTESIA-MW28-10122016 MS	600-138323-13 MS	A29617.d	10/22/2016 15:41
ARTESIA-MW28-10122016 MSD	600-138323-13 MSD	A29618.d	10/22/2016 16:06
ARTESIA-MW12-10122016 DL	600-138323-2 DL	A29619.d	10/22/2016 16:30
ARTESIA-MIDDLE-10132016	600-138323-21	A29621.d	10/22/2016 17:18
ARTESIA-EFFLUENT-10132016	600-138323-22	A29622.d	10/22/2016 17:42
ARTESIA-MD18-10122016	600-138323-23	A29623.d	10/22/2016 18:06
ARTESIA-MD30-10122016	600-138323-24	A29624.d	10/22/2016 18:30

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab File ID: J29605.D Lab Sample ID: MB 600-199328/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: CHVOAMS06 Date Analyzed: 10/22/2016 13:43

GC Column: DB-VRX 60 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-199328/4	J29602.D	10/22/2016 12:18
	LCSD 600-199328/5	J29603.D	10/22/2016 12:46
ARTESIA-MW29-10122016	600-138323-15	J29608.D	10/22/2016 15:08
ARTESIA-MW30-10122016	600-138323-16	J29609.D	10/22/2016 15:36
ARTESIA-MW32-10132016	600-138323-18	J29610.D	10/22/2016 16:04
ARTESIA-MW33-10132016	600-138323-19	J29611.D	10/22/2016 16:33
ARTESIA-MW34-10122016	600-138323-14	J29612.D	10/22/2016 17:01
ARTESIA-MW34-10122016 MS	600-138323-14 MS	J29613.D	10/22/2016 17:30
ARTESIA-MW34-10122016 MSD	600-138323-14 MSD	J29614.D	10/22/2016 17:58

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab File ID: J28100C.D BFB Injection Date: 10/07/2016

Instrument ID: CHVOAMS06 BFB Injection Time: 12:06

Analysis Batch No.: 198309

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.7	
75	30.0 - 60.0 % of mass 95	47.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	76.8	
175	5.0 - 9.0 % of mass 174	6.2	(8.1) 1
176	95.0 - 101.0 % of mass 174	74.1	(96.5) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-198309/3	J28101.D	10/07/2016	12:34
	IC 600-198309/4	J28102.D	10/07/2016	13:03
	IC 600-198309/5	J28103.D	10/07/2016	13:31
	IC 600-198309/6	J28104.D	10/07/2016	14:00
	ICIS 600-198309/7	J28105.D	10/07/2016	14:28
	IC 600-198309/8	J28106.D	10/07/2016	14:57
	IC 600-198309/9	J28107.D	10/07/2016	15:25

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab File ID: J29600.D BFB Injection Date: 10/22/2016

Instrument ID: CHVOAMS06 BFB Injection Time: 11:08

Analysis Batch No.: 199328

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.8	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.1	(0.1) 1
174	50.0 - 120.00 % of mass 95	79.0	
175	5.0 - 9.0 % of mass 174	5.8	(7.4) 1
176	95.0 - 101.0 % of mass 174	75.4	(95.5) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-199328/3	J29601.D	10/22/2016	11:36
	LCS 600-199328/4	J29602.D	10/22/2016	12:18
	LCSD 600-199328/5	J29603.D	10/22/2016	12:46
	MB 600-199328/7	J29605.D	10/22/2016	13:43
ARTESIA-MW29-10122016	600-138323-15	J29608.D	10/22/2016	15:08
ARTESIA-MW30-10122016	600-138323-16	J29609.D	10/22/2016	15:36
ARTESIA-MW32-10132016	600-138323-18	J29610.D	10/22/2016	16:04
ARTESIA-MW33-10132016	600-138323-19	J29611.D	10/22/2016	16:33
ARTESIA-MW34-10122016	600-138323-14	J29612.D	10/22/2016	17:01
ARTESIA-MW34-10122016 MS	600-138323-14 MS	J29613.D	10/22/2016	17:30
ARTESIA-MW34-10122016 MSD	600-138323-14 MSD	J29614.D	10/22/2016	17:58

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab File ID: A29400a.d BFB Injection Date: 10/20/2016

Instrument ID: CHVOAMS07 BFB Injection Time: 09:14

Analysis Batch No.: 199119

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.0	
75	30.0 - 60.0 % of mass 95	50.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.8	(0.8) 1
174	50.0 - 120.00 % of mass 95	92.5	
175	5.0 - 9.0 % of mass 174	7.4	(8.0) 1
176	95.0 - 101.0 % of mass 174	89.5	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-199119/2	A29401.d	10/20/2016	09:50
	IC 600-199119/3	A29402.d	10/20/2016	10:14
	IC 600-199119/4	A29403.d	10/20/2016	10:38
	IC 600-199119/5	A29404.d	10/20/2016	11:02
	ICIS 600-199119/6	A29405.d	10/20/2016	11:26
	IC 600-199119/7	A29406.d	10/20/2016	11:50
	IC 600-199119/8	A29407.d	10/20/2016	12:15

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab File ID: A29500.d BFB Injection Date: 10/21/2016

Instrument ID: CHVOAMS07 BFB Injection Time: 08:18

Analysis Batch No.: 199231

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.2	
75	30.0 - 60.0 % of mass 95	51.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.2	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	94.0	
175	5.0 - 9.0 % of mass 174	7.0	(7.4) 1
176	95.0 - 101.0 % of mass 174	90.0	(95.7) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-199231/2	A29502.d	10/21/2016	09:42
	LCS 600-199231/3	A29502a.d	10/21/2016	10:26
	LCSD 600-199231/4	A29503.d	10/21/2016	10:50
	MB 600-199231/6	A29505.d	10/21/2016	11:38
ARTESIA-MW11-10122016	600-138323-5	A29516.d	10/21/2016	16:03
ARTESIA-MW12-10122016	600-138323-2	A29517.d	10/21/2016	16:27
ARTESIA-MW15-10122016	600-138323-1	A29518.d	10/21/2016	16:51
ARTESIA-MW17C-10122016	600-138323-3	A29519.d	10/21/2016	17:15
ARTESIA-MW8-10122016	600-138323-4	A29520.d	10/21/2016	17:39
ARTESIA-MW18-10122016	600-138323-6	A29521.d	10/21/2016	18:03
ARTESIA-MW20-10122016	600-138323-7	A29522.d	10/21/2016	18:27
ARTESIA-MW21-10122016	600-138323-8	A29523.d	10/21/2016	18:50
ARTESIA-MW11-10122016 MS	600-138323-5 MS	A29525.d	10/21/2016	19:38
ARTESIA-MW11-10122016 MSD	600-138323-5 MSD	A29526.d	10/21/2016	20:02

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab File ID: A29600a.d BFB Injection Date: 10/22/2016

Instrument ID: CHVOAMS07 BFB Injection Time: 08:46

Analysis Batch No.: 199311

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	99.2	
175	5.0 - 9.0 % of mass 174	6.7	(6.7) 1
176	95.0 - 101.0 % of mass 174	95.4	(96.2) 1
177	5.0 - 9.0 % of mass 176	6.7	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-199311/2	A29601.d	10/22/2016	09:13
	LCS 600-199311/3	A29602.d	10/22/2016	09:58
	LCSD 600-199311/4	A29603.d	10/22/2016	10:21
	MB 600-199311/6	A29605.d	10/22/2016	11:16
ARTESIA-TB01-10122016	600-138323-17	A29606.d	10/22/2016	11:40
ARTESIA-MW17C-10122016	600-138323-3	A29607.d	10/22/2016	12:03
ARTESIA-MW8-10122016	600-138323-4	A29608.d	10/22/2016	12:27
ARTESIA-MW28-10122016	600-138323-13	A29609.d	10/22/2016	12:51
ARTESIA-MW31-10122016	600-138323-9	A29610.d	10/22/2016	13:18
ARTESIA-MW22-10122016	600-138323-10	A29612.d	10/22/2016	13:41
ARTESIA-MW25-10122016	600-138323-11	A29613.d	10/22/2016	14:05
ARTESIA-MW26-10122016	600-138323-12	A29614.d	10/22/2016	14:29
ARTESIA-MW15-10122016	600-138323-1	A29615.d	10/22/2016	14:53
ARTESIA-INLET-10132016	600-138323-20	A29616.d	10/22/2016	15:17
ARTESIA-MW28-10122016 MS	600-138323-13 MS	A29617.d	10/22/2016	15:41
ARTESIA-MW28-10122016 MSD	600-138323-13 MSD	A29618.d	10/22/2016	16:06
ARTESIA-MW12-10122016 DL	600-138323-2 DL	A29619.d	10/22/2016	16:30
ARTESIA-MIDDLE-10132016	600-138323-21	A29621.d	10/22/2016	17:18
ARTESIA-EFFLUENT-10132016	600-138323-22	A29622.d	10/22/2016	17:42
ARTESIA-MD18-10122016	600-138323-23	A29623.d	10/22/2016	18:06
ARTESIA-MD30-10122016	600-138323-24	A29624.d	10/22/2016	18:30

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Sample No.: CCVIS 600-199328/3 Date Analyzed: 10/22/2016 11:36

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm)

Lab File ID (Standard): J29601.D Heated Purge: (Y/N) N

Calibration ID: 10403

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		619460	8.71	241142	11.74	139402	14.32
UPPER LIMIT		1238920	9.21	482284	12.24	278804	14.82
LOWER LIMIT		309730	8.21	120571	11.24	69701	13.82
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-199328/4		618464	8.71	247171	11.74	138522	14.33
LCSD 600-199328/5		615446	8.71	238730	11.75	132621	14.33
MB 600-199328/7		617707	8.71	248563	11.74	170404	14.33
600-138323-15	ARTESIA-MW29-10122016	600641	8.71	240788	11.75	172042	14.33
600-138323-16	ARTESIA-MW30-10122016	590497	8.71	241483	11.74	170617	14.33
600-138323-18	ARTESIA-MW32-10132016	588804	8.71	241720	11.75	175224	14.33
600-138323-19	ARTESIA-MW33-10132016	610426	8.71	247718	11.74	180684	14.33
600-138323-14	ARTESIA-MW34-10122016	587391	8.71	247582	11.75	179055	14.33
600-138323-14 MS	ARTESIA-MW34-10122016 MS	594883	8.71	240122	11.75	152645	14.33
600-138323-14 MSD	ARTESIA-MW34-10122016 MSD	595719	8.71	243201	11.74	149979	14.33

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Sample No.: CCVIS 600-199231/2 Date Analyzed: 10/21/2016 09:42

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm)

Lab File ID (Standard): A29502.d Heated Purge: (Y/N) N

Calibration ID: 10470

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		608676	8.59	159950	11.60	162595	14.19
UPPER LIMIT		1217352	9.09	319900	12.10	325190	14.69
LOWER LIMIT		304338	8.09	79975	11.10	81298	13.69
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-199231/3		639546	8.59	173343	11.60	168396	14.19
LCSD 600-199231/4		657874	8.60	178044	11.60	181045	14.19
MB 600-199231/6		513806	8.60	122391	11.60	104753	14.19
600-138323-5	ARTESIA-MW11-10122016	642697	8.60	151801	11.60	119126	14.19
600-138323-2	ARTESIA-MW12-10122016	726923	8.60	167609	11.60	278239	14.19
600-138323-1	ARTESIA-MW15-10122016	1138437	8.60	264664	11.60	270239	14.19
600-138323-3	ARTESIA-MW17C-10122016	1106212	8.60	258447	11.60	250123	14.19
600-138323-4	ARTESIA-MW8-10122016	952810	8.60	230338	11.60	219437	14.19
600-138323-6	ARTESIA-MW18-10122016	882655	8.60	212639	11.60	192721	14.19
600-138323-7	ARTESIA-MW20-10122016	791949	8.60	197077	11.60	169765	14.19
600-138323-8	ARTESIA-MW21-10122016	764129	8.60	179987	11.60	156038	14.19
600-138323-5 MS	ARTESIA-MW11-10122016 MS	835862	8.60	225758	11.60	228288	14.19
600-138323-5 MSD	ARTESIA-MW11-10122016 MSD	871038	8.60	241060	11.60	226003	14.19

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Sample No.: CCVIS 600-199311/2 Date Analyzed: 10/22/2016 09:13

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm)

Lab File ID (Standard): A29601.d Heated Purge: (Y/N) N

Calibration ID: 10470

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		581666	8.59	161223	11.60	153284	14.19
UPPER LIMIT		1163332	9.09	322446	12.10	306568	14.69
LOWER LIMIT		290833	8.09	80612	11.10	76642	13.69
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-199311/3		631052	8.59	170889	11.60	160005	14.19
LCSD 600-199311/4		647861	8.60	176898	11.60	170178	14.19
MB 600-199311/6		538476	8.60	121638	11.60	101161	14.19
600-138323-17	ARTESIA-TB01-10122016	694350	8.60	153315	11.60	120590	14.19
600-138323-3	ARTESIA-MW17C-10122016	649277	8.60	145477	11.60	115442	14.19
600-138323-4	ARTESIA-MW8-10122016	659744	8.60	148048	11.60	131044	14.19
600-138323-13	ARTESIA-MW28-10122016	636220	8.60	148977	11.60	115755	14.19
600-138323-9	ARTESIA-MW31-10122016	623431	8.60	144708	11.60	118041	14.19
600-138323-10	ARTESIA-MW22-10122016	607571	8.60	141329	11.60	115745	14.19
600-138323-11	ARTESIA-MW25-10122016	572875	8.60	142369	11.60	111282	14.19
600-138323-12	ARTESIA-MW26-10122016	566565	8.60	134047	11.60	109490	14.19
600-138323-1	ARTESIA-MW15-10122016	569816	8.60	135742	11.60	124435	14.19
600-138323-20	ARTESIA-INLET-10132016	556594	8.60	142500	11.60	117418	14.19
600-138323-13 MS	ARTESIA-MW28-10122016 MS	711102	8.60	200843	11.60	205175	14.19
600-138323-13 MSD	ARTESIA-MW28-10122016 MSD	750175	8.60	209812	11.60	211506	14.19
600-138323-2 DL	ARTESIA-MW12-10122016 DL	735620	8.60	162047	11.60	190170	14.19
600-138323-21	ARTESIA-MIDDLE-10132016	629747	8.60	157289	11.60	128758	14.19
600-138323-22	ARTESIA-EFFLUENT-10132016	595964	8.60	144502	11.60	124078	14.19
600-138323-23	ARTESIA-MD18-10122016	561136	8.60	139746	11.60	113028	14.19
600-138323-24	ARTESIA-MD30-10122016	549374	8.60	139094	11.60	114031	14.19

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW15-10122016 | Lab Sample ID: 600-138323-1

Matrix: Water | Lab File ID: A29518.d

Analysis Method: 8260B | Date Collected: 10/12/2016 10:30

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 16:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	69		50-134
460-00-4	4-Bromofluorobenzene	73		67-139
1868-53-7	Dibromofluoromethane	74		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW15-10122016 | Lab Sample ID: 600-138323-1

Matrix: Water | Lab File ID: A29615.d

Analysis Method: 8260B | Date Collected: 10/12/2016 10:30

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 14:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	0.000582	J	0.00200	0.000129

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		50-134
460-00-4	4-Bromofluorobenzene	68		67-139
1868-53-7	Dibromofluoromethane	85		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW12-10122016 | Lab Sample ID: 600-138323-2

Matrix: Water | Lab File ID: A29517.d

Analysis Method: 8260B | Date Collected: 10/12/2016 11:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 16:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.00440		0.00100	0.000192
71-43-2	Benzene	0.0485		0.00100	0.000176
127-18-4	Tetrachloroethene	0.00232		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	61		50-134
460-00-4	4-Bromofluorobenzene	77		67-139
1868-53-7	Dibromofluoromethane	75		62-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW12-10122016 DL Lab Sample ID: 600-138323-2 DL

Matrix: Water Lab File ID: A29619.d

Analysis Method: 8260B Date Collected: 10/12/2016 11:00

Sample wt/vol: 20(mL) Date Analyzed: 10/22/2016 16:30

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 199311 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.0595		0.0200	0.00336
91-20-3	Naphthalene	0.296		0.0400	0.00258

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	74		50-134
460-00-4	4-Bromofluorobenzene	84		67-139
1868-53-7	Dibromofluoromethane	78		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW17C-10122016 Lab Sample ID: 600-138323-3

Matrix: Water Lab File ID: A29519.d

Analysis Method: 8260B Date Collected: 10/12/2016 11:20

Sample wt/vol: 20(mL) Date Analyzed: 10/21/2016 17:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 199231 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000359	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000557	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	65		50-134
460-00-4	4-Bromofluorobenzene	71		67-139
1868-53-7	Dibromofluoromethane	73		62-130
2037-26-5	Toluene-d8 (Surr)	101		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW17C-10122016 | Lab Sample ID: 600-138323-3

Matrix: Water | Lab File ID: A29607.d

Analysis Method: 8260B | Date Collected: 10/12/2016 11:20

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 12:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	0.000646	J	0.00200	0.000129

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	68		50-134
460-00-4	4-Bromofluorobenzene	74		67-139
1868-53-7	Dibromofluoromethane	78		62-130
2037-26-5	Toluene-d8 (Surr)	107		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW8-10122016 | Lab Sample ID: 600-138323-4

Matrix: Water | Lab File ID: A29520.d

Analysis Method: 8260B | Date Collected: 10/12/2016 12:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 17:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00416		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000733	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
127-18-4	Tetrachloroethene	0.000749	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	70		50-134
460-00-4	4-Bromofluorobenzene	71		67-139
1868-53-7	Dibromofluoromethane	82		62-130
2037-26-5	Toluene-d8 (Surr)	100		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW8-10122016 | Lab Sample ID: 600-138323-4

Matrix: Water | Lab File ID: A29608.d

Analysis Method: 8260B | Date Collected: 10/12/2016 12:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 12:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	0.000603	J	0.00200	0.000129

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	76		50-134
460-00-4	4-Bromofluorobenzene	75		67-139
1868-53-7	Dibromofluoromethane	81		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW11-10122016 | Lab Sample ID: 600-138323-5

Matrix: Water | Lab File ID: A29516.d

Analysis Method: 8260B | Date Collected: 10/12/2016 12:40

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 16:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00548	F1	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000898	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	70		50-134
460-00-4	4-Bromofluorobenzene	79		67-139
1868-53-7	Dibromofluoromethane	82		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW18-10122016 | Lab Sample ID: 600-138323-6

Matrix: Water | Lab File ID: A29521.d

Analysis Method: 8260B | Date Collected: 10/12/2016 13:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 18:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000427	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00175		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.00118	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00196		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		50-134
460-00-4	4-Bromofluorobenzene	73		67-139
1868-53-7	Dibromofluoromethane	80		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW20-10122016 | Lab Sample ID: 600-138323-7

Matrix: Water | Lab File ID: A29522.d

Analysis Method: 8260B | Date Collected: 10/12/2016 13:30

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 18:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00811		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000866	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000962	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00178		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	76		50-134
460-00-4	4-Bromofluorobenzene	73		67-139
1868-53-7	Dibromofluoromethane	79		62-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW21-10122016 | Lab Sample ID: 600-138323-8

Matrix: Water | Lab File ID: A29523.d

Analysis Method: 8260B | Date Collected: 10/12/2016 14:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 18:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000882	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		50-134
460-00-4	4-Bromofluorobenzene	74		67-139
1868-53-7	Dibromofluoromethane	80		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW31-10122016 | Lab Sample ID: 600-138323-9

Matrix: Water | Lab File ID: A29610.d

Analysis Method: 8260B | Date Collected: 10/12/2016 14:15

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 13:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000317	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		50-134
460-00-4	4-Bromofluorobenzene	72		67-139
1868-53-7	Dibromofluoromethane	82		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW22-10122016 | Lab Sample ID: 600-138323-10

Matrix: Water | Lab File ID: A29612.d

Analysis Method: 8260B | Date Collected: 10/12/2016 14:30

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 13:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00117		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00151		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000609	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00431		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	72		50-134
460-00-4	4-Bromofluorobenzene	75		67-139
1868-53-7	Dibromofluoromethane	82		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW25-10122016 | Lab Sample ID: 600-138323-11

Matrix: Water | Lab File ID: A29613.d

Analysis Method: 8260B | Date Collected: 10/12/2016 14:50

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 14:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00113		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00392		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00521		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		50-134
460-00-4	4-Bromofluorobenzene	75		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW26-10122016 | Lab Sample ID: 600-138323-12

Matrix: Water | Lab File ID: A29614.d

Analysis Method: 8260B | Date Collected: 10/12/2016 15:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 14:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000336	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00101		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00111		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	77		50-134
460-00-4	4-Bromofluorobenzene	74		67-139
1868-53-7	Dibromofluoromethane	85		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW28-10122016 | Lab Sample ID: 600-138323-13

Matrix: Water | Lab File ID: A29609.d

Analysis Method: 8260B | Date Collected: 10/12/2016 15:30

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 12:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00549		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0120		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0175		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	68		50-134
460-00-4	4-Bromofluorobenzene	75		67-139
1868-53-7	Dibromofluoromethane	79		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW34-10122016 | Lab Sample ID: 600-138323-14

Matrix: Water | Lab File ID: J29612.D

Analysis Method: 8260B | Date Collected: 10/12/2016 16:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 17:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199328 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00200		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00694		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U *	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00505		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		50-134
460-00-4	4-Bromofluorobenzene	69		67-139
1868-53-7	Dibromofluoromethane	85		62-130
2037-26-5	Toluene-d8 (Surr)	85		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW29-10122016 | Lab Sample ID: 600-138323-15

Matrix: Water | Lab File ID: J29608.D

Analysis Method: 8260B | Date Collected: 10/12/2016 16:30

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 15:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199328 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00990		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0332		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U *	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0238		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	73		50-134
460-00-4	4-Bromofluorobenzene	70		67-139
1868-53-7	Dibromofluoromethane	81		62-130
2037-26-5	Toluene-d8 (Surr)	89		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW30-10122016 | Lab Sample ID: 600-138323-16

Matrix: Water | Lab File ID: J29609.D

Analysis Method: 8260B | Date Collected: 10/12/2016 17:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 15:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199328 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00283		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00473		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U *	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00592		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	73		50-134
460-00-4	4-Bromofluorobenzene	69		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	87		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-TB01-10122016 | Lab Sample ID: 600-138323-17

Matrix: Water | Lab File ID: A29606.d

Analysis Method: 8260B | Date Collected: 10/12/2016 08:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 11:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000624	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	69		50-134
460-00-4	4-Bromofluorobenzene	79		67-139
1868-53-7	Dibromofluoromethane	76		62-130
2037-26-5	Toluene-d8 (Surr)	109		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW32-10132016 | Lab Sample ID: 600-138323-18

Matrix: Water | Lab File ID: J29610.D

Analysis Method: 8260B | Date Collected: 10/13/2016 09:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 16:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199328 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00115		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U *	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00291		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	74		50-134
460-00-4	4-Bromofluorobenzene	69		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	86		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW33-10132016 | Lab Sample ID: 600-138323-19

Matrix: Water | Lab File ID: J29611.D

Analysis Method: 8260B | Date Collected: 10/13/2016 09:45

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 16:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199328 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U *	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	73		50-134
460-00-4	4-Bromofluorobenzene	70		67-139
1868-53-7	Dibromofluoromethane	81		62-130
2037-26-5	Toluene-d8 (Surr)	87		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-INLET-10132016 Lab Sample ID: 600-138323-20

Matrix: Water Lab File ID: A29616.d

Analysis Method: 8260B Date Collected: 10/13/2016 08:15

Sample wt/vol: 20(mL) Date Analyzed: 10/22/2016 15:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 199311 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00434		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0149		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000605	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0168		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		50-134
460-00-4	4-Bromofluorobenzene	80		67-139
1868-53-7	Dibromofluoromethane	88		62-130
2037-26-5	Toluene-d8 (Surr)	100		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MIDDLE-10132016 Lab Sample ID: 600-138323-21

Matrix: Water Lab File ID: A29621.d

Analysis Method: 8260B Date Collected: 10/13/2016 08:20

Sample wt/vol: 20(mL) Date Analyzed: 10/22/2016 17:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 199311 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00423		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0131		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000742	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0143		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		50-134
460-00-4	4-Bromofluorobenzene	78		67-139
1868-53-7	Dibromofluoromethane	85		62-130
2037-26-5	Toluene-d8 (Surr)	100		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-EFFLUENT-10132016 Lab Sample ID: 600-138323-22

Matrix: Water Lab File ID: A29622.d

Analysis Method: 8260B Date Collected: 10/13/2016 08:25

Sample wt/vol: 20(mL) Date Analyzed: 10/22/2016 17:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 199311 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000434	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000682	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		50-134
460-00-4	4-Bromofluorobenzene	77		67-139
1868-53-7	Dibromofluoromethane	85		62-130
2037-26-5	Toluene-d8 (Surr)	99		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MD18-10122016 | Lab Sample ID: 600-138323-23

Matrix: Water | Lab File ID: A29623.d

Analysis Method: 8260B | Date Collected: 10/12/2016 13:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 18:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000488	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00183		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00167		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		50-134
460-00-4	4-Bromofluorobenzene	77		67-139
1868-53-7	Dibromofluoromethane	88		62-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MD30-10122016 | Lab Sample ID: 600-138323-24

Matrix: Water | Lab File ID: A29624.d

Analysis Method: 8260B | Date Collected: 10/12/2016 17:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 18:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00270		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00288		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00731		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		50-134
460-00-4	4-Bromofluorobenzene	74		67-139
1868-53-7	Dibromofluoromethane	89		62-130
2037-26-5	Toluene-d8 (Surr)	97		70-130

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-198309/3	J28101.D
Level 2	IC 600-198309/4	J28102.D
Level 3	IC 600-198309/5	J28103.D
Level 4	IC 600-198309/6	J28104.D
Level 5	ICIS 600-198309/7	J28105.D
Level 6	IC 600-198309/8	J28106.D
Level 7	IC 600-198309/9	J28107.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.0886 0.1160	0.0834 0.1097	0.0895	0.1103	0.1164	Ave		0.1020				13.9		15.0			
Chloromethane	0.2425 0.3353	0.2406 0.3300	0.2551	0.3072	0.3123	Ave		0.2890			0.1000	14.4		15.0			
Vinyl chloride	0.1921 0.2702	0.1982 0.2652	0.1987	0.2498	0.2531	Ave		0.2325				14.9		15.0			
Butadiene	0.2434 0.2848	0.2293 0.2748	0.2150	0.2707	0.2665	Ave		0.2549				10.2		15.0			
Bromomethane	0.0845 0.1418	0.0963 0.1419	0.1149	0.1269	0.1349	Lin2	-0.030	0.1365							0.9960		0.9900
Chloroethane	0.1319 0.1908	0.1372 0.1829	0.1390	0.1684	0.1744	Lin2	-0.028	0.1759							0.9910		0.9900
Dichlorofluoromethane	0.2493 0.4412	0.2938 0.4454	0.2968	0.3835	0.4032	Lin1	-0.150	0.4418							0.9980		0.9900
Acetonitrile	0.0135 0.0138	0.0146 0.0136	0.0123	0.0129	0.0124	Ave		0.0133				6.1		15.0			
Acrolein	0.0359 0.0283	0.0424 0.0414	0.0360	0.0388	0.0391	Ave		0.0374				12.6		15.0			
Trichlorofluoromethane	0.1616 0.3446	0.2183 0.3440	0.2395	0.2977	0.3070	Lin2	-0.089	0.3225							0.9920		0.9900
Acetone	0.1307 0.0383	0.1391 0.0617	0.1160	0.0576	0.0563	Qua	0.2835	0.0212	0.0003746						0.9940		0.9900
Ethyl ether	0.2982 0.2138	0.2805 0.2052	0.2395	0.2288	0.2217	Ave		0.2411				14.5		15.0			
t-Butanol	0.0336 0.0182	0.0229 0.0334	0.0289	0.0290	0.0313	Qua	0.4139	0.0121	0.0000407						0.9900		0.9900
1,1-Dichloroethene	0.1718 0.1617	0.2105 0.1487	0.1732	0.1631	0.1558	Ave		0.1693				11.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acrylonitrile	0.0726 0.0493	0.0606 0.0668	0.0587	0.0630	0.0640	Ave		0.0622				11.7		15.0			
Iodomethane	0.2241 0.2293	0.2755 0.2054	0.2428	0.2221	0.2299	Ave		0.2327				9.4		15.0			
Methylene Chloride	1.2311 0.2272	0.8238 0.2056	0.5006	0.3166	0.2438	Lin1	0.5624	0.1960							0.9960		0.9900
Methyl acetate	0.1912 0.1287	0.1667 0.1619	0.1751	0.1621	0.1633	Ave		0.1641				11.5		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1392 0.1293	0.1488 0.1115	0.1372	0.1301	0.1219	Ave		0.1311				9.3		15.0			
3-Chloro-1-propene	0.1268 0.1136	0.1300 0.1040	0.1270	0.1137	0.1170	Ave		0.1189				7.9		15.0			
Carbon disulfide	0.3217 0.2917	0.3862 0.2579	0.3121	0.2848	0.2859	Ave		0.3057				13.4		15.0			
trans-1,2-Dichloroethene	0.2060 0.2036	0.2571 0.1879	0.2377	0.2145	0.2031	Ave		0.2157				11.0		15.0			
Methyl tert-butyl ether	0.8018 0.7035	0.9395 0.6796	0.7919	0.7352	0.7432	Ave		0.7707				11.2		15.0			
Propionitrile	0.0333 0.0212	0.0318 0.0330	0.0249	0.0272	0.0291	Qua	0.2924	0.0156	0.0000334						0.9960		0.9900
1,1-Dichloroethane	0.5523 0.5313	0.6786 0.4832	0.5734	0.5333	0.5306	Ave		0.5547			0.1000	11.0		15.0			
Vinyl acetate	0.6723 0.6173	0.7258 0.6346	0.6528	0.6592	0.6600	Ave		0.6603				5.2		15.0			
2-Chloro-1,3-butadiene	0.7704 0.6810	0.8060 0.6152	0.7190	0.6981	0.6775	Ave		0.7096				8.9		15.0			
Hexane	0.5201 0.4125	0.4932 0.3608	0.4443	0.4052	0.3862	Ave		0.4318				13.3		15.0			
Isopropyl ether	1.6192 1.4954	1.8294 1.3892	1.6281	1.5440	1.4842	Ave		1.5699				9.0		15.0			
2-Butanone (MEK)	0.0151 0.0265	0.0322 0.0315	0.0305	0.0311	0.0307	Lin1	-0.008	0.0305							0.9940		0.9900
Methacrylonitrile	0.0369 0.0279	0.0368 0.0299	0.0330	0.0328	0.0321	Ave		0.0328				10.1		15.0			
cis-1,2-Dichloroethene	0.2917 0.2567	0.3442 0.2434	0.2967	0.2710	0.2680	Ave		0.2817				11.8		15.0			
Ethyl acetate	0.3511 0.2557	0.3589 0.2774	0.2880	0.2851	0.2844	Ave		0.3001				13.0		15.0			
Chlorobromomethane	0.1217 0.1032	0.1346 0.1059	0.1194	0.1153	0.1113	Ave		0.1159				9.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chloroform	0.5298 0.4567	0.5756 0.4179	0.5008	0.4781	0.4696	Ave		0.4898				10.5		15.0			
Tert-butyl ethyl ether	1.3566 1.1946	1.4763 1.1106	1.3300	1.2397	1.2156	Ave		1.2748				9.5		15.0			
2,2-Dichloropropane	0.2852 0.2620	0.3398 0.2066	0.2989	0.2775	0.2651	Ave		0.2764				14.6		15.0			
Tetrahydrofuran	0.1487 0.0809	0.1447 0.0888	0.0978	0.0947	0.0847	Lin1	0.0747	0.0851							0.9960		0.9900
1,2-Dichloroethane	0.4174 0.3428	0.4487 0.3337	0.3988	0.3661	0.3677	Ave		0.3822				10.8		15.0			
1,1,1-Trichloroethane	0.4027 0.3749	0.4662 0.3317	0.4160	0.3820	0.3781	Ave		0.3931				10.6		15.0			
n-Butanol	0.0066 0.0065	0.0089 0.0085	0.0082	0.0084	0.0073	Ave		0.0078				12.5		15.0			
1,1-Dichloropropene	0.3954 0.3525	0.4291 0.3204	0.3914	0.3431	0.3466	Ave		0.3683				10.3		15.0			
Cyclohexane	0.3513 0.3496	0.4309 0.3049	0.3672	0.3492	0.3321	Ave		0.3550				10.9		15.0			
Carbon tetrachloride	0.3475 0.3321	0.3764 0.3026	0.3540	0.3407	0.3294	Ave		0.3404				6.7		15.0			
Benzene	1.1988 1.0375	1.3047 0.9684	1.1475	1.0809	1.0371	Ave		1.1107				10.3		15.0			
2-Nitropropane	0.2306 0.1753	0.2431 0.1674	0.2003	0.1951	0.1775	Ave		0.1985				14.5		15.0			
Tert-amyl methyl ether	0.9540 0.8472	1.0699 0.7920	0.9340	0.8558	0.8606	Ave		0.9019				10.2		15.0			
Isooctane	1.2993 1.1723	1.4511 1.0169	1.2828	1.1633	1.1118	Ave		1.2139				11.7		15.0			
Ethyl acrylate	0.5994 0.4557	0.5535 0.4765	0.5378	0.5026	0.5034	Ave		0.5184				9.4		15.0			
n-Heptane	0.5878 0.4639	0.5963 0.3998	0.5197	0.4640	0.4461	Ave		0.4968				14.9		15.0			
Dibromomethane	0.1724 0.1347	0.1716 0.1349	0.1660	0.1538	0.1445	Ave		0.1540				10.7		15.0			
1,2-Dichloropropane	0.3784 0.3391	0.4348 0.3169	0.3718	0.3652	0.3489	Ave		0.3650				10.2		15.0			
Trichloroethene	0.3337 0.2674	0.3512 0.2523	0.3014	0.2947	0.2735	Ave		0.2963				12.1		15.0			
Bromodichloromethane	0.4442 0.3737	0.4985 0.3681	0.4431	0.4041	0.3911	Ave		0.4175				11.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	+++++ 0.0013	0.0003 0.0011	0.0007	0.0012	0.0013	Lin	0.0115	0.0011							0.9910		0.9900
2-Chloroethyl vinyl ether	0.4537 0.4461	0.5288 0.4252	0.4653	0.4378	0.4494	Ave		0.4580				7.3		15.0			
Methyl methacrylate	0.1426 0.1226	0.1512 0.1072	0.1316	0.1231	0.1205	Ave		0.1284				11.5		15.0			
Methylcyclohexane	0.4330 0.4294	0.5158 0.3761	0.4496	0.4308	0.4170	Ave		0.4359				9.6		15.0			
cis-1,3-Dichloropropene	1.2703 1.1628	1.4037 1.0986	1.2324	1.1751	1.1563	Ave		1.2142				8.3		15.0			
4-Methyl-2-pentanone (MIBK)	0.5098 0.3701	0.5375 0.3795	0.4450	0.4168	0.4057	Ave		0.4378				14.6		15.0			
trans-1,3-Dichloropropene	1.0540 1.0739	1.1891 0.9878	1.1254	1.0309	1.0512	Ave		1.0732				6.1		15.0			
n-Butyl acetate	0.4623 0.3870	0.4858 0.3652	0.4550	0.3809	0.3880	Ave		0.4178				11.5		15.0			
1,1,2-Trichloroethane	0.6771 0.5415	0.6646 0.5118	0.6245	0.5548	0.5421	Ave		0.5881				11.3		15.0			
Ethyl methacrylate	0.9606 0.8567	0.9499 0.7894	0.9028	0.8502	0.8452	Ave		0.8792				7.0		15.0			
Toluene	1.9776 1.7693	2.3342 1.6129	1.8957	1.7706	1.7255	Ave		1.8694				12.6		15.0			
1,3-Dichloropropane	1.0895 1.0041	1.2754 0.9171	1.0666	0.9823	1.0317	Ave		1.0524				10.8		15.0			
2-Hexanone	0.6679 0.6024	0.7414 0.5667	0.6628	0.6256	0.6178	Ave		0.6407				8.8		15.0			
Dibromochloromethane	0.6935 0.6284	0.8171 0.6187	0.6898	0.6208	0.6603	Ave		0.6755				10.3		15.0			
1,2-Dibromoethane	0.5369 0.5150	0.6101 0.4833	0.5273	0.4984	0.5168	Ave		0.5268				7.7		15.0			
Tetrachloroethene	0.6759 0.5197	0.6514 0.4784	0.6080	0.5035	0.5256	Ave		0.5661				13.8		15.0			
1-Chlorohexane	1.0750 0.9526	1.1955 0.8640	1.0711	0.9815	0.9606	Ave		1.0143				10.7		15.0			
1,1,1,2-Tetrachloroethane	0.7710 0.6624	0.9151 0.6421	0.8178	0.7148	0.6983	Ave		0.7459				12.9		15.0			
Chlorobenzene	2.3596 1.9180	2.5388 1.8061	2.2037	2.0000	1.9728	Ave		2.1141			0.3000	12.4		15.0			
Ethylbenzene	1.3146 1.0683	1.4413 1.0142	1.2183	1.1019	1.1030	Ave		1.1803				12.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	3.0261 2.5255	3.4981 2.4063	2.8733	2.6330	2.6690	Ave		2.8045				13.2		15.0			
Bromoform	0.5951 0.6255	0.6523 0.6100	0.6370	0.5447	0.5648	Ave		0.6042			0.1000	6.4		15.0			
Styrene	2.3256 2.0396	2.6594 1.9461	2.3155	2.1091	2.1293	Ave		2.2178				10.8		15.0			
o-Xylene	1.4370 1.2270	1.6345 1.1693	1.4803	1.3465	1.3092	Ave		1.3720				11.6		15.0			
1,1,2,2-Tetrachloroethane	1.2016 1.0554	1.2327 0.9525	1.0383	0.9683	0.9776	Ave		1.0609			0.3000	10.7		15.0			
trans-1,4-Dichloro-2-butene	0.3367 0.4196	0.3729 0.3882	0.4017	0.3759	0.3915	Ave		0.3838				6.8		15.0			
1,2,3-Trichloropropane	0.3317 0.3068	0.3510 0.2747	0.3347	0.2907	0.2966	Ave		0.3123				8.8		15.0			
Isopropylbenzene	6.4211 6.3353	7.0684 5.9102	6.5961	5.7806	5.7902	Ave		6.2717				7.6		15.0			
Bromobenzene	1.5632 1.3804	1.5639 1.3088	1.4684	1.2934	1.3414	Ave		1.4171				8.1		15.0			
N-Propylbenzene	1.7433 1.6720	2.0245 1.5640	1.7710	1.6107	1.5629	Ave		1.7069				9.5		15.0			
2-Chlorotoluene	1.3650 1.2831	1.5081 1.2135	1.4342	1.3050	1.2556	Ave		1.3378				7.8		15.0			
4-Chlorotoluene	4.8088 4.2924	5.0777 3.9051	4.6235	4.1912	4.1142	Ave		4.4304				9.5		15.0			
1,3,5-Trimethylbenzene	5.3020 4.5260	5.6198 4.0578	5.0655	4.5114	4.3762	Ave		4.7798				11.7		15.0			
tert-Butylbenzene	4.6392 3.8446	4.7473 3.3854	4.3610	3.8792	3.6838	Ave		4.0772				12.6		15.0			
1,2,4-Trimethylbenzene	5.3862 4.3465	5.6627 3.9692	5.0815	4.5247	4.3220	Ave		4.7561				13.2		15.0			
sec-Butylbenzene	6.4970 5.5517	7.0667 4.8431	6.2855	5.7450	5.3542	Ave		5.9061				12.8		15.0			
Benzyl chloride	0.7954 0.5861	0.7138 0.6617	0.6478	0.6536	0.6468	Ave		0.6722				9.8		15.0			
1,3-Dichlorobenzene	2.3713 1.8932	2.5992 1.8108	2.2894	1.9894	1.9839	Ave		2.1339				13.6		15.0			
1,4-Dichlorobenzene	2.0427 1.6378	2.2371 1.5728	1.9667	1.7579	1.7340	Ave		1.8499				13.0		15.0			
4-Isopropyltoluene	5.6455 4.4659	5.7645 3.8259	5.3449	4.6876	4.3966	Ave		4.8759				14.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	4.8178 3.6971	4.9868 3.2766	4.4987	4.0326	3.7575	Lin1	1.3257	3.4195							0.9950		0.9900
1,2-Dichlorobenzene	1.1958 0.9461	1.3384 0.9912	1.2387	1.1202	1.0256	Ave		1.1223				12.8		15.0			
n-Butylbenzene	4.2266 3.1664	4.3561 2.8134	3.9146	3.6152	3.3051	Lin1	1.2324	2.9468							0.9940		0.9900
Naphthalene	+++++ 0.1331	0.0967 0.0969	0.1170	0.1002	0.1075	Ave		0.1085				13.2		15.0			
1,2,3-Trichlorobenzene	+++++ 0.0376	0.0128 0.0274	0.0304	0.0116	0.0320	Qua	-0.072	0.0456	-0.000334						0.9900		0.9900
Dibromofluoromethane	0.2397 0.2230	0.2727 0.2102	0.2362	0.2245	0.2308	Ave		0.2339				8.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3146 0.2554	0.3732 0.2520	0.3076	0.2855	0.2772	Ave		0.2951				14.2		15.0			
Toluene-d8 (Surr)	2.6461 2.2484	2.7900 2.0973	2.4059	2.2441	2.2618	Ave		2.3848				10.4		15.0			
4-Bromofluorobenzene	1.9944 1.6574	1.9286 1.4948	1.6820	1.4698	1.5225	Ave		1.6785				12.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-198309/3	J28101.D
Level 2	IC 600-198309/4	J28102.D
Level 3	IC 600-198309/5	J28103.D
Level 4	IC 600-198309/6	J28104.D
Level 5	ICIS 600-198309/7	J28105.D
Level 6	IC 600-198309/8	J28106.D
Level 7	IC 600-198309/9	J28107.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	1800 85156	3282 216973	7107	21439	45658	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloromethane	FB	Ave	4927 246220	9471 652420	20248	59738	122495	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	3903 198442	7802 524253	15773	48561	99295	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Butadiene	FB	Ave	4945 209146	9028 543316	17066	52642	104541	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromomethane	FB	Lin2	1717 104119	3789 280574	9121	24677	52908	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroethane	FB	Lin2	2679 140141	5400 361647	11031	32753	68429	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Lin1	5066 323962	11565 880525	23552	74569	158161	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acetonitrile	FB	Ave	2751 101675	5730 269512	9762	25129	48686	5.00 200	10.0 500	20.0	50.0	100
Acrolein	FB	Ave	3643 103752	8348 408897	14295	37729	76616	2.50 100	5.00 250	10.0	25.0	50.0
Trichlorofluoromethane	FB	Lin2	3283 253026	8592 680157	19008	57891	120446	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acetone	FB	Qua	5313 56262	10951 243956	18419	22387	44164	1.00 40.0	2.00 100	4.00	10.0	20.0
Ethyl ether	FB	Ave	6059 156974	11042 405676	19005	44495	86977	0.500 20.0	1.00 50.0	2.00	5.00	10.0
t-Butanol	FB	Qua	6819 134009	9023 660672	22971	56415	122878	5.00 200	10.0 500	20.0	50.0	100
1,1-Dichloroethene	FB	Ave	3490 118729	8288 294015	13747	31714	61123	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrylonitrile	FB	Ave	14751 361766	23847 1321538	46612	122485	251227	5.00 200	10.0 500	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Iodomethane	FB	Ave	4553 168345	10844 406024	19268	43186	90202	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methylene Chloride	FB	Lin1	25013 166864	32431 406446	39732	61566	95642	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	19423 472554	32803 1600075	69501	157570	320207	2.50 100	5.00 250	10.0	25.0	50.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	2829 94938	5856 220441	10890	25299	47814	0.500 20.0	1.00 50.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	2577 83423	5116 205613	10082	22099	45882	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	6537 214193	15204 509837	24767	55368	112158	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	4186 149516	10119 371511	18862	41704	79670	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	16292 516571	36984 1343528	62849	142943	291547	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Propionitrile	FB	Qua	6757 155329	12533 652094	19790	52847	114016	5.00 200	10.0 500	20.0	50.0	100
1,1-Dichloroethane	FB	Ave	11222 390169	26714 955394	45510	103688	208152	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	27321 906630	57144 2509128	103626	256357	517843	1.00 40.0	2.00 100	4.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	15654 500045	31727 1216387	57067	135738	265777	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexane	FB	Ave	10568 302928	19415 713272	35262	78785	151503	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl ether	FB	Ave	32900 1098126	72016 2746606	129214	300214	582216	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Lin1	613 38936	2538 124495	4842	12081	24106	1.00 40.0	2.00 100	4.00	10.0	20.0
Methacrylonitrile	FB	Ave	7504 204960	14503 590331	26161	63790	126094	5.00 200	10.0 500	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Ave	5927 188473	13549 481157	23548	52702	105147	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acetate	FB	Ave	14266 375459	28253 1097020	45717	110855	223124	1.00 40.0	2.00 100	4.00	10.0	20.0
Chlorobromomethane	FB	Ave	2472 75815	5297 209276	9478	22416	43664	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroform	FB	Ave	10765 335372	22658 826175	39743	92969	184207	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tert-butyl ethyl ether	FB	Ave	27564 877227	58117 2195829	105558	241042	476870	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
2,2-Dichloropropane	FB	Ave	5795 192396	13377 408403	23719	53953	103987	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Lin1	6042 118826	11391 351078	15520	36828	66457	1.00 40.0	2.00 100	4.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	8480 251735	17663 659821	31654	71176	144232	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	8182 275265	18351 655848	33015	74273	148311	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butanol	FB	Ave	3336 119476	8749 421512	16353	40595	71754	12.5 500	25.0 1250	50.0	125	250
1,1-Dichloropropene	FB	Ave	8034 258842	16893 633474	31060	66704	135956	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	7138 256738	16963 602897	29140	67907	130288	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	7061 243860	14817 598321	28097	66249	129203	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzene	FB	Ave	24357 761870	51361 1914528	91074	210160	406839	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Nitropropane	FB	Ave	9372 257510	19139 661875	31793	75879	139300	1.00 40.0	2.00 100	4.00	10.0	20.0
Tert-amyl methyl ether	FB	Ave	19384 622151	42117 1565839	74127	166399	337599	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isooctane	FB	Ave	26399 860875	57122 2010434	101809	226190	436148	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acrylate	FB	Ave	12178 334646	21789 942095	42680	97730	197463	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Heptane	FB	Ave	11943 340628	23473 790340	41244	90218	175017	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	3502 98914	6754 266740	13177	29905	56701	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	7689 249029	17117 626517	29506	71004	136888	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	6780 196336	13825 498750	23917	57304	107304	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	9025 274427	19623 727812	35167	78567	153440	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dioxane	FB	Lin	+++++ 18875	233 42582	1054	4476	10059	+++++ 400	20.0 1000	40.0	100	200
2-Chloroethyl vinyl ether	CBNZ d5	Ave	8122 283073	18235 734960	32086	76925	154520	1.00 40.0	2.00 100	4.00	10.0	20.0
Methyl methacrylate	FB	Ave	5795 180011	11905 423948	20887	47876	94504	1.00 40.0	2.00 100	4.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methylcyclohexane	FB	Ave	8797 315300	20303 743482	35685	83756	163594	0.500 20.0	1.00 50.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	11370 368972	24201 949498	42494	103235	198782	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	20716 543567	42318 1500454	70632	162082	318300	1.00 40.0	2.00 100	4.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	9434 340747	20501 853682	38806	90571	180709	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butyl acetate	CBNZ d5	Ave	4138 122802	8376 315666	15690	33466	66694	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6061 171828	11459 442331	21533	48746	93194	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Ave	8598 271829	16377 682224	31129	74698	145290	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene	CBNZ d5	Ave	17701 561405	40245 1393947	65364	155559	296620	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	9752 318621	21990 792621	36778	86300	177349	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Hexanone	CBNZ d5	Ave	11957 382311	25565 979489	45710	109918	212412	1.00 40.0	2.00 100	4.00	10.0	20.0
Dibromochloromethane	CBNZ d5	Ave	6207 199412	14087 534746	23785	54538	113506	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromoethane	CBNZ d5	Ave	4806 163414	10519 417668	18180	43791	88848	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	6050 164916	11231 413465	20963	44235	90358	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Ave	9622 302253	20611 746685	36932	86230	165133	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6901 210176	15778 554909	28199	62802	120040	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chlorobenzene	CBNZ d5	Ave	21120 608589	43772 1560886	75985	175713	339137	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	11767 338989	24849 876557	42009	96811	189615	0.500 20.0	1.00 50.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	27086 801373	60312 2079654	99073	231323	458819	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromoform	DCBd 4	Ave	3066 94259	6776 257277	12797	27422	54072	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Styrene	CBNZ d5	Ave	20816 647198	45851 1681920	79841	185295	366038	0.500 20.0	1.00 50.0	2.00	5.00	10.0
o-Xylene	CBNZ d5	Ave	12862 389331	28181 1010583	51040	118297	225060	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6191 159058	12805 401726	20859	48745	93586	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1735 63242	3873 163726	8070	18921	37477	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Ave	1709 46241	3646 115872	6724	14632	28399	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropylbenzene	DCBd 4	Ave	33084 954760	73423 2492742	132518	290992	554326	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	8054 208039	16245 552015	29501	65107	128423	0.500 20.0	1.00 50.0	2.00	5.00	10.0
N-Propylbenzene	DCBd 4	Ave	8982 251975	21030 659641	35579	81081	149625	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Ave	7033 193372	15665 511816	28813	65693	120203	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Ave	24777 646894	52745 1647047	92887	210980	393873	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	27318 682100	58376 1711453	101767	227099	418960	0.500 20.0	1.00 50.0	2.00	5.00	10.0
tert-Butylbenzene	DCBd 4	Ave	23903 579406	49313 1427885	87613	195275	352672	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	27752 655048	58821 1674114	102088	227768	413768	0.500 20.0	1.00 50.0	2.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	33475 836668	73405 2042668	126277	289200	512581	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzyl chloride	DCBd 4	Ave	4098 88327	7415 279080	13014	32904	61926	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	12218 285314	26999 763745	45995	100144	189930	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCBd 4	Ave	10525 246820	23238 663349	39512	88491	166009	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	29088 673034	59879 1613670	107380	235972	420914	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trimethylbenzene	DCBd 4	Lin1	24823 557175	51800 1381989	90379	202997	359721	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCBd 4	Ave	6161 142586	13903 418059	24886	56391	98190	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butylbenzene	DCBd 4	Lin1	21777 477199	45249 1186594	78646	181988	316416	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Naphthalene	DCBd 4	Ave	+++++ 20054	1004 40849	2350	5043	10288	+++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Qua	+++++ 5665	133 11553	610	585	3066	+++++ 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 198309

SDG No.:

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/07/2016 12:34 Calibration End Date: 10/07/2016 15:25 Calibration ID: 10403

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dibromofluoromethane	FB	Ave	4871 163749	10736 415595	18749	43646	90521	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	6393 187556	14690 498215	24412	55515	108726	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	23685 713440	48102 1812552	82955	197160	388810	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Bromofluorobenzene	DCBd 4	Ave	10276 249777	20033 630448	33791	73990	145755	0.500 20.0	1.00 50.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-199119/2	A29401.d
Level 2	IC 600-199119/3	A29402.d
Level 3	IC 600-199119/4	A29403.d
Level 4	IC 600-199119/5	A29404.d
Level 5	ICIS 600-199119/6	A29405.d
Level 6	IC 600-199119/7	A29406.d
Level 7	IC 600-199119/8	A29407.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3680 0.2977	0.3310 0.2951	0.3265	0.3071	0.3069	Ave		0.3189				8.0		15.0			
Chloromethane	0.2225 0.1477	0.1551 0.1406	0.1547	0.1566	0.1521	Lin2	0.0347	0.1421			0.1000				0.9910		0.9900
Ethylene oxide	+++++ 0.0038	0.0094 0.0035	0.0068	0.0063	0.0042	Lin	0.0896	0.0034							0.9980		0.9900
Vinyl chloride	0.2363 0.2060	0.1922 0.2066	0.1947	0.2054	0.2105	Ave		0.2074				6.9		15.0			
Butadiene	0.2903 0.2165	0.2092 0.1904	0.1849	0.2350	0.2270	Lin1	0.0385	0.2006							0.9930		0.9900
Bromomethane	0.1069 0.0773	0.0574 0.1010	0.0519	0.0580	0.0621	Qua	-0.009	0.0591	0.0008433						1.0000		0.9900
Chloroethane	0.2006 0.1188	0.1413 0.1201	0.1360	0.1210	0.1254	Lin2	0.0389	0.1161							0.9950		0.9900
Dichlorofluoromethane	0.5131 0.3615	0.3726 0.3333	0.3803	0.3443	0.3432	Lin2	0.0799	0.3342							0.9940		0.9900
Acrolein	0.0115 0.0078	0.0079 0.0076	0.0065	0.0073	0.0075	Lin1	0.0041	0.0076							0.9980		0.9900
Acetonitrile	0.0078 0.0048	0.0065 0.0048	0.0057	0.0045	0.0047	Lin2	0.0165	0.0046							0.9960		0.9900
Trichlorofluoromethane	0.5892 0.4763	0.5006 0.4434	0.4782	0.4866	0.4925	Ave		0.4953				9.1		15.0			
Isopropyl alcohol	0.0032 0.0020	0.0024 0.0021	0.0021	0.0015	0.0020	Lin1	0.0030	0.0020							0.9930		0.9900
Acetone	+++++ 0.0126	0.0140 0.0121	0.0122	0.0131	0.0122	Ave		0.0127				5.9		15.0			
Ethyl ether	0.1107 0.0916	0.0797 0.0931	0.0812	0.0901	0.0870	Ave		0.0905				11.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
t-Butanol	0.0074 0.0046	0.0048 0.0048	0.0044	0.0041	0.0043	Lin1	0.0056	0.0046							0.9960		0.9900
1,1-Dichloroethene	0.3303 0.2589	0.2106 0.2483	0.2382	0.2440	0.2456	Ave		0.2537				14.6		15.0			
Acrylonitrile	0.0152 0.0148	0.0138 0.0142	0.0120	0.0148	0.0147	Ave		0.0142				7.6		15.0			
Iodomethane	0.1564 0.2115	0.0857 0.2418	0.1272	0.1564	0.1752	Lin	-0.339	0.2446							0.9960		0.9900
Methylene Chloride	0.9711 0.2176	0.5803 0.1976	0.3684	0.2689	0.2266	Lin2	0.3898	0.1888							0.9980		0.9900
Methyl acetate	0.0502 0.0399	0.0323 0.0413	0.0378	0.0349	0.0386	Ave		0.0393				14.4		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3913 0.2785	0.2444 0.2681	0.2764	0.2862	0.2733	Lin1	0.0330	0.2700							0.9990		0.9900
3-Chloro-1-propene	0.1416 0.1308	0.1020 0.1273	0.1083	0.1239	0.1261	Ave		0.1229				11.0		15.0			
Carbon disulfide	0.9973 0.6839	0.6879 0.5851	0.7513	0.7348	0.7278	Lin1	0.2091	0.6227							0.9910		0.9900
trans-1,2-Dichloroethene	0.4425 0.2836	0.2440 0.2765	0.2554	0.2647	0.2670	Lin1	0.0296	0.2741							0.9970		0.9900
Methyl tert-butyl ether	0.2798 0.3251	0.2591 0.3256	0.2527	0.2932	0.3052	Ave		0.2915				10.1		15.0			
Propionitrile	+++++ 0.0061	0.0040 0.0059	0.0046	0.0059	0.0059	Lin2	-0.022	0.0061							0.9980		0.9900
1,1-Dichloroethane	0.5259 0.4041	0.3455 0.3973	0.4060	0.4146	0.4064	Ave		0.4142			0.1000	13.1		15.0			
Vinyl acetate	+++++ 0.1225	0.0608 0.1256	0.0928	0.1037	0.1121	Lin2	-0.124	0.1223							0.9980		0.9900
2-Chloro-1,3-butadiene	0.3117 0.3405	0.2126 0.3571	0.2747	0.3130	0.3121	Lin1	-0.082	0.3485							0.9970		0.9900
Hexane	0.2722 0.3036	0.2398 0.3079	0.2934	0.3001	0.3124	Ave		0.2899				8.9		15.0			
2-Butanone (MEK)	0.0166 0.0093	0.0142 0.0098	0.0099	0.0109	0.0099	Lin2	0.0074	0.0095							0.9900		0.9900
Isopropyl ether	0.5167 0.5494	0.4081 0.5518	0.5002	0.5266	0.5106	Ave		0.5091				9.5		15.0			
Methacrylonitrile	0.0098 0.0104	0.0079 0.0106	0.0090	0.0095	0.0095	Ave		0.0095				9.4		15.0			
cis-1,2-Dichloroethene	0.4212 0.3041	0.2588 0.2958	0.2976	0.3182	0.2996	Lin1	0.0294	0.2974							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethyl acetate	0.0476 0.0542	0.0293 0.0552	0.0382	0.0478	0.0488	Lin1	-0.031	0.0543							0.9960		0.9900
Chlorobromomethane	0.1491 0.1157	0.1018 0.1073	0.1180	0.1231	0.1117	Ave		0.1181				13.0		15.0			
Chloroform	0.6627 0.4832	0.4401 0.4642	0.4693	0.4932	0.4750	Ave		0.4982				14.9		15.0			
Isobutyl alcohol	+++++ 0.0039	0.0028 0.0040	0.0034	0.0039	0.0034	Lin2	-0.020	0.0038							0.9960		0.9900
Tert-butyl ethyl ether	0.4071 0.4475	0.3066 0.4473	0.3578	0.4093	0.4183	Ave		0.3991				12.7		15.0			
2,2-Dichloropropane	0.5058 0.4159	0.3517 0.4085	0.3977	0.4208	0.4002	Ave		0.4144				11.2		15.0			
Tetrahydrofuran	+++++ 0.0137	0.0141 0.0144	0.0159	0.0115	0.0118	Ave		0.0136				12.3		15.0			
1,2-Dichloroethane	0.2755 0.1950	0.1879 0.1875	0.1849	0.1940	0.1805	Lin1	0.0244	0.1873							0.9990		0.9900
1,1,1-Trichloroethane	0.6838 0.5154	0.4101 0.4958	0.4843	0.5037	0.4918	Lin1	0.0255	0.4981							0.9980		0.9900
n-Butanol	+++++ 0.0009	0.0006 0.0011	0.0002	0.0008	0.0006	Lin	-0.059	0.0011							0.9940		0.9900
1,1-Dichloropropene	0.3454 0.3599	0.2272 0.3542	0.2973	0.3543	0.3460	Ave		0.3263				14.9		15.0			
Cyclohexane	0.3857 0.4048	0.2414 0.4002	0.3598	0.3885	0.4038	Lin1	-0.061	0.4030							0.9990		0.9900
Carbon tetrachloride	0.5878 0.4955	0.3882 0.4918	0.4703	0.4862	0.4828	Ave		0.4861				12.0		15.0			
Benzene	1.3111 1.0683	0.9196 1.0083	1.0513	1.0891	1.0292	Ave		1.0681				11.3		15.0			
2-Nitropropane	0.0430 0.0536	0.0358 0.0512	0.0364	0.0438	0.0481	Lin1	-0.025	0.0514							0.9970		0.9900
Tert-amyl methyl ether	0.3254 0.3651	0.2362 0.3670	0.2876	0.3210	0.3349	Ave		0.3196				14.3		15.0			
Isooctane	0.6501 0.5994	0.4174 0.6012	0.5345	0.5735	0.5847	Ave		0.5658				13.1		15.0			
Ethyl acrylate	0.1181 0.1358	0.1113 0.1375	0.1089	0.1124	0.1136	Ave		0.1197				10.0		15.0			
n-Heptane	0.2311 0.2478	0.1526 0.2466	0.2006	0.2344	0.2389	Lin1	-0.045	0.2467							0.9990		0.9900
Dibromomethane	0.0984 0.0894	0.0787 0.0870	0.0828	0.0907	0.0863	Ave		0.0876				7.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichloropropane	0.2441 0.1976	0.1625 0.1936	0.1804	0.1879	0.1884	Ave		0.1935				13.0		15.0			
Trichloroethene	0.4718 0.3769	0.3334 0.3720	0.3624	0.3675	0.3649	Ave		0.3784				11.5		15.0			
Bromodichloromethane	0.2974 0.2884	0.2267 0.2749	0.2541	0.2795	0.2788	Ave		0.2714				8.8		15.0			
Methyl methacrylate	+++++ 0.0602	0.0333 0.0635	0.0340	0.0501	0.0536	Lin1	-0.088	0.0629							0.9970		0.9900
1,4-Dioxane	+++++ 0.0004	0.0009 0.0003	0.0006	0.0004	0.0004	Lin1	0.0113	0.0003							0.9980		0.9900
2-Chloroethyl vinyl ether	+++++ 0.0068	0.0353 0.0054	0.0195	0.0132	0.0105	Qua	0.0647	0.0062	-0.000015						0.9920		0.9900
Methylcyclohexane	0.3559 0.4318	0.2407 0.4256	0.3458	0.4102	0.4060	Lin1	-0.097	0.4273							0.9980		0.9900
cis-1,3-Dichloropropene	0.9537 0.9561	0.6883 0.9903	0.8198	0.9130	0.8972	Ave		0.8883				11.7		15.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.0494	0.0322 0.0526	0.0317	0.0441	0.0421	Lin1	-0.061	0.0516							0.9960		0.9900
trans-1,3-Dichloropropene	0.5077 0.6084	0.3609 0.6588	0.4728	0.5557	0.5515	Lin1	-0.190	0.6361							0.9950		0.9900
1,1,2-Trichloroethane	0.5844 0.3955	0.4166 0.3991	0.4026	0.4194	0.3901	Lin2	0.0868	0.3817							0.9920		0.9900
Ethyl methacrylate	+++++ 0.3756	0.1677 0.4185	0.2349	0.3023	0.3067	Lin1	-0.335	0.4052							0.9930		0.9900
Toluene	2.6152 2.3839	1.7107 2.4206	2.1522	2.5363	2.3813	Ave		2.3143				13.1		15.0			
1,3-Dichloropropane	0.7149 0.6778	0.6647 0.6761	0.6425	0.7692	0.6797	Ave		0.6893				6.0		15.0			
2-Hexanone	+++++ 0.0957	0.0331 0.1120	0.0872	0.0703	0.0823	Lin	-0.376	0.1139							0.9960		0.9900
Dibromochloromethane	0.5893 0.5672	0.4893 0.5928	0.5436	0.5844	0.5491	Ave		0.5594				6.5		15.0			
n-Butyl acetate	0.1457 0.2620	0.1056 0.3038	0.1695	0.1924	0.2139	Lin	-0.449	0.3072							0.9960		0.9900
1,2-Dibromoethane	+++++ 0.3573	0.2191 0.3674	0.3505	0.3463	0.3417	Lin2	-0.132	0.3714							0.9940		0.9900
Tetrachloroethene	1.0714 0.8958	0.7559 0.9414	0.8633	0.9062	0.8726	Ave		0.9010				10.5		15.0			
1,1,1,2-Tetrachloroethane	1.1020 0.8771	0.8240 0.8679	0.8888	0.8642	0.8708	Ave		0.8992				10.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1-Chlorohexane	0.6118 0.6268	0.3656 0.6627	0.5010	0.5672	0.5997	Lin1	-0.153	0.6469							0.9970		0.9900
Chlorobenzene	3.3173 2.4043	2.3959 2.3812	2.4760	2.6106	2.3595	Ave		2.5636			0.3000	13.4		15.0			
Ethylbenzene	1.3912 1.4110	1.0462 1.4281	1.1612	1.3766	1.3259	Ave		1.3057				11.1		15.0			
m-Xylene & p-Xylene	2.8531 3.0901	1.7139 3.1044	2.4908	2.9026	2.9764	Lin1	-0.657	3.0963							0.9980		0.9900
Bromoform	0.2963 0.1922	0.1936 0.1970	0.2224	0.2053	0.1917	Lin1	0.0363	0.1940			0.1000				0.9990		0.9900
Styrene	1.3899 2.0398	0.9239 2.2063	1.1621	1.5775	1.7868	Lin1	-0.969	2.1197							0.9910		0.9900
Cyclohexanone	+++++ 0.0052	0.0031 0.0060	0.0030	0.0038	0.0045	Lin1	-0.235	0.0057							0.9900		0.9900
1,1,2,2-Tetrachloroethane	0.5539 0.3678	0.3556 0.3337	0.3886	0.3543	0.3747	Lin1	0.0842	0.3433			0.3000				0.9970		0.9900
o-Xylene	1.4213 1.6765	1.0056 1.6678	1.3919	1.6492	1.6703	Lin1	-0.330	1.6800							0.9990		0.9900
trans-1,4-Dichloro-2-butene	+++++ 0.0582	0.0579 0.0561	0.0576	0.0473	0.0500	Ave		0.0545				8.6		15.0			
1,2,3-Trichloropropane	0.3468 0.1141	0.1625 0.0995	0.1339	0.1230	0.1170	Lin1	0.1007	0.1010							0.9930		0.9900
Isopropylbenzene	3.3775 4.2369	2.2745 3.6954	3.4635	3.8203	4.1024	Lin1	-0.592	3.8946							0.9940		0.9900
Bromobenzene	0.9873 0.8484	0.7003 0.7856	0.8616	0.7768	0.8030	Ave		0.8233				10.9		15.0			
N-Propylbenzene	0.9069 1.2347	0.6375 1.1438	0.9799	1.1174	1.1779	Lin1	-0.269	1.1773							0.9970		0.9900
2-Chlorotoluene	1.0358 1.0645	0.6998 0.9738	0.9241	1.0298	1.0072	Ave		0.9621				12.9		15.0			
4-Chlorotoluene	2.4532 2.7287	1.6467 2.4824	2.4349	2.5848	2.6170	Ave		2.4211				14.7		15.0			
1,3,5-Trimethylbenzene	3.0184 3.4710	1.9964 3.1658	2.9776	3.2859	3.3953	Lin1	-0.432	3.2834							0.9970		0.9900
tert-Butylbenzene	2.5934 3.1465	1.7092 2.8625	2.5724	2.8376	2.9266	Lin1	-0.522	2.9527							0.9970		0.9900
1,2,4-Trimethylbenzene	2.6177 3.5235	2.0335 3.2345	2.9006	3.3364	3.3508	Lin1	-0.622	3.3433							0.9980		0.9900
sec-Butylbenzene	3.6321 4.3274	2.6947 3.9227	3.9718	4.1200	4.2005	Ave		3.8385				14.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzyl chloride	0.5777 0.5662	0.3519 0.6232	0.4364	0.4273	0.4669	Lin	-0.692	0.6288							0.9970		0.9900
1,3-Dichlorobenzene	2.2245 2.0264	1.6312 1.8962	1.9361	1.9314	1.8882	Ave		1.9334				9.2		15.0			
1,4-Dichlorobenzene	2.6035 2.0108	1.8251 1.9511	2.1564	2.0140	1.9334	Ave		2.0706				12.3		15.0			
4-Isopropyltoluene	4.6030 4.2030	3.1911 3.8966	3.9478	4.1147	4.0493	Ave		4.0008				10.6		15.0			
1,2,3-Trimethylbenzene	3.1883 3.3882	2.2357 3.1520	2.9238	3.1117	3.2281	Ave		3.0326				12.5		15.0			
1,2-Dichlorobenzene	1.7821 1.5530	1.2909 1.4935	1.5370	1.5269	1.4541	Ave		1.5196				9.6		15.0			
n-Butylbenzene	2.8718 3.2416	1.9785 3.0401	2.6278	2.9254	3.0631	Ave		2.8212				14.8		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0533	0.0776 0.0485	0.0751	0.0569	0.0446	Lin1	0.0360	0.0481							0.9940		0.9900
1,3,5-Trichlorobenzene	1.7233 1.2994	0.8843 1.2467	1.1245	1.1792	1.2104	Lin1	-0.018	1.2479							0.9970		0.9900
1,2,4-Trichlorobenzene	0.8922 0.8382	0.5533 0.8017	0.6760	0.6878	0.7463	Lin1	-0.105	0.8004							0.9960		0.9900
Naphthalene	0.1289 0.9620	0.5496 0.9777	0.6784	0.6840	0.7901	Lin1	-0.503	0.9598							0.9950		0.9900
Hexachlorobutadiene	0.4208 0.2629	0.2764 0.2452	0.2812	0.2679	0.2451	Lin1	0.0697	0.2471							0.9990		0.9900
1,2,3-Trichlorobenzene	0.5319 0.5553	0.4498 0.5229	0.5247	0.4918	0.5109	Ave		0.5125				6.6		15.0			
Dibromofluoromethane	0.4114 0.2676	0.2481 0.2577	0.2535	0.2750	0.2602	Lin1	0.0424	0.2585							0.9980		0.9900
1,2-Dichloroethane-d4 (Surr)	0.2229 0.1709	0.1586 0.1661	0.1696	0.1839	0.1606	Ave		0.1761				12.6		15.0			
Toluene-d8 (Surr)	3.3940 3.3333	2.2163 3.3792	2.8515	3.2156	3.2582	Ave		3.0926				13.8		15.0			
4-Bromofluorobenzene	1.0838 0.9014	0.6868 0.8138	0.8353	0.8879	0.8821	Ave		0.8702				13.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-199119/2	A29401.d
Level 2	IC 600-199119/3	A29402.d
Level 3	IC 600-199119/4	A29403.d
Level 4	IC 600-199119/5	A29404.d
Level 5	ICIS 600-199119/6	A29405.d
Level 6	IC 600-199119/7	A29406.d
Level 7	IC 600-199119/8	A29407.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7208 306065	13578 868483	28448	71183	151119	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloromethane	FB	Lin2	4358 151869	6363 413601	13482	36284	74868	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylene oxide	FB	Lin	+++++ 39118	3851 103678	5896	14532	20781	+++++ 200	10.0 500	20.0	50.0	100
Vinyl chloride	FB	Ave	4629 211761	7884 607950	16964	47607	103620	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Butadiene	FB	Lin1	5686 222573	8580 560431	16107	54475	111786	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromomethane	FB	Qua	2094 79474	2353 297184	4519	13449	30568	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroethane	FB	Lin2	3929 122133	5797 353494	11848	28041	61735	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Lin2	10051 371649	15285 980783	33140	79800	168978	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrolein	FB	Lin1	1122 40182	1630 111906	2826	8471	18513	2.50 100	5.00 250	10.0	25.0	50.0
Acetonitrile	FB	Lin2	1532 49705	2662 141899	4973	10425	22964	5.00 200	10.0 500	20.0	50.0	100
Trichlorofluoromethane	FB	Ave	11542 489629	20534 1304900	41669	112782	242483	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl alcohol	FB	Lin1	619 20063	974 61882	1864	3495	9752	5.00 200	10.0 500	20.0	50.0	100
Acetone	FB	Ave	+++++ 25915	1150 70951	2128	6063	12041	+++++ 40.0	2.00 100	4.00	10.0	20.0
Ethyl ether	FB	Ave	2168 94161	3271 273850	7075	20878	42855	0.500 20.0	1.00 50.0	2.00	5.00	10.0
t-Butanol	FB	Lin1	1454 47077	1975 140529	3831	9537	20926	5.00 200	10.0 500	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1-Dichloroethene	FB	Ave	6470 266131	8638 730618	20756	56558	120920	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrylonitrile	FB	Ave	2975 152056	5658 418009	10450	34247	72144	5.00 200	10.0 500	20.0	50.0	100
Iodomethane	FB	Lin	3064 217447	3517 711660	11081	36250	86283	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methylene Chloride	FB	Lin2	19022 223713	23807 581465	32100	62322	111554	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	4912 204942	6632 607177	16450	40413	94978	2.50 100	5.00 250	10.0	25.0	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	7665 286306	10026 788842	24085	66325	134553	0.500 20.0	1.00 50.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	2774 134505	4186 374736	9437	28709	62089	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon disulfide	FB	Lin1	19535 702997	28219 1721674	65464	170305	358360	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Lin1	8667 291512	10010 813783	22251	61339	131474	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	5480 334235	10627 958016	22019	67951	150259	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Propionitrile	FB	Lin2	+++++ 62876	1629 172866	4037	13690	28972	+++++ 200	10.0 500	20.0	50.0	100
1,1-Dichloroethane	FB	Ave	10302 415371	14172 1168979	35375	96085	200122	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl acetate	FB	Lin2	+++++ 251877	4988 739084	16170	48085	110434	+++++ 40.0	2.00 100	4.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Lin1	6106 350041	8723 1050919	23937	72542	153654	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexane	FB	Ave	5331 312095	9836 905966	25563	69543	153815	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Lin2	652 19021	1164 57847	1721	5034	9755	1.00 40.0	2.00 100	4.00	10.0	20.0
Isopropyl ether	FB	Ave	10122 564779	16741 1623720	43582	122048	251412	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methacrylonitrile	FB	Ave	1922 106910	3252 311909	7838	22114	46651	5.00 200	10.0 500	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Lin1	8251 312632	10616 870533	25934	73753	147497	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acetate	FB	Lin1	1863 111497	2401 324676	6649	22151	48024	1.00 40.0	2.00 100	4.00	10.0	20.0
Chlorobromomethane	FB	Ave	2921 118966	4177 315881	10284	28540	54989	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chloroform	FB	Ave	12981 496751	18054 1365895	40889	114298	233888	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isobutyl alcohol	FB	Lin2	+++++ 99581	2896 292362	7360	22437	42238	+++++ 500	25.0 1250	50.0	125	250
Tert-butyl ethyl ether	FB	Ave	7974 459979	12576 1316125	31180	94854	205972	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2,2-Dichloropropane	FB	Ave	9908 427525	14427 1202090	34653	97523	197027	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	+++++ 28162	1159 84733	2773	5337	11598	+++++ 40.0	2.00 100	4.00	10.0	20.0
1,2-Dichloroethane	FB	Lin1	5396 200424	7710 551657	16109	44955	88861	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Lin1	13394 529783	16825 1459113	42199	116748	242149	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butanol	FB	Lin	+++++ 23418	627 80234	530	4358	7953	+++++ 500	25.0 1250	50.0	125	250
1,1-Dichloropropene	FB	Ave	6765 369949	9320 1042346	25904	82108	170354	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexane	FB	Lin1	7556 416090	9904 1177661	31349	90046	198841	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	11513 509327	15925 1447216	40981	112694	237737	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzene	FB	Ave	25681 1098169	37724 2967112	91602	252411	506770	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Nitropropane	FB	Lin1	1685 110281	2940 301141	6337	20310	47381	1.00 40.0	2.00 100	4.00	10.0	20.0
Tert-amyl methyl ether	FB	Ave	6374 375306	9689 1079915	25060	74402	164892	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isooctane	FB	Ave	12734 616136	17121 1769235	46568	132921	287901	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acrylate	FB	Ave	2313 139559	4566 404528	9491	26043	55956	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Heptane	FB	Lin1	4526 254713	6262 725690	17478	54330	117649	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	1928 91918	3228 256041	7216	21029	42476	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	4782 203152	6665 569715	15717	43543	92787	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	9241 387460	13676 1094615	31573	85168	179683	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	5825 296449	9299 809085	22141	64791	137282	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methyl methacrylate	FB	Lin1	+++++ 123768	2734 373927	5933	23215	52748	+++++ 40.0	2.00 100	4.00	10.0	20.0
1,4-Dioxane	FB	Lin1	+++++ 7212	776 20045	1001	1886	3857	+++++ 400	20.0 1000	40.0	100	200
2-Chloroethyl vinyl ether	CBNZ d5	Qua	+++++ 3990	729 8683	852	1598	2846	+++++ 40.0	2.00 100	4.00	10.0	20.0
Methylcyclohexane	FB	Lin1	6971 443896	9873 1252288	30134	95064	199886	0.500 20.0	1.00 50.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	4465 282247	7105 798094	17932	55112	122107	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Lin1	+++++ 101627	2642 309281	5518	20441	41429	+++++ 40.0	2.00 100	4.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Lin1	2377 179609	3726 530919	10341	33541	75065	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Lin2	2736 116761	4301 321631	8806	25313	53097	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Lin1	+++++ 110881	1731 337263	5138	18246	41736	+++++ 20.0	1.00 50.0	2.00	5.00	10.0
Toluene	CBNZ d5	Ave	12243 703757	17660 1950792	47075	153096	324098	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	3347 200099	6862 544888	14053	46431	92502	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Hexanone	CBNZ d5	Lin	+++++ 56518	683 180450	3815	8491	22404	+++++ 40.0	2.00 100	4.00	10.0	20.0
Dibromochloromethane	CBNZ d5	Ave	2759 167447	5051 477787	11890	35276	74736	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butyl acetate	CBNZ d5	Lin	682 77345	1090 244808	3707	11612	29110	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromoethane	CBNZ d5	Lin2	+++++ 105467	2262 296081	7667	20904	46509	+++++ 20.0	1.00 50.0	2.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	5016 264441	7803 758737	18883	54701	118768	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5159 258932	8506 699437	19440	52165	118516	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Lin1	2864 185046	3774 534059	10959	34235	81625	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chlorobenzene	CBNZ d5	Ave	15530 709780	24733 1919069	54157	157580	321136	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	6513 416536	10800 1150979	25398	83095	180458	0.500 20.0	1.00 50.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Lin1	13357 912220	17693 2501961	54480	175205	405086	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Bromoform	DCBd 4	Lin1	1209 55995	1806 180760	4425	12233	25373	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Styrene	CBNZ d5	Lin1	6507 602178	9537 1778127	25417	95223	243182	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexanone	CBNZ d5	Lin1	+++++ 77351	1577 240939	3330	11560	30663	+++++ 1000	50.0 2500	100	250	500
1,1,2,2-Tetrachloroethane	DCBd 4	Lin1	2260 107146	3317 306102	7731	21112	49599	0.500 20.0	1.00 50.0	2.00	5.00	10.0
o-Xylene	CBNZ d5	Lin1	6654 494918	10381 1344138	30445	99550	227328	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 16960	540 51429	1146	2820	6616	+++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Lin1	1415 33226	1516 91250	2665	7330	15484	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropylbenzene	DCBd 4	Lin1	13780 1234223	21218 3390105	68912	227617	543007	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	4028 247140	6533 720705	17143	46283	106287	0.500 20.0	1.00 50.0	2.00	5.00	10.0
N-Propylbenzene	DCBd 4	Lin1	3700 359680	5947 1049331	19496	66576	155910	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Ave	4226 310088	6528 893361	18387	61355	133311	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Ave	10009 794883	15362 2277331	48446	154006	346391	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Lin1	12315 1011102	18624 2904267	59245	195777	449404	0.500 20.0	1.00 50.0	2.00	5.00	10.0
tert-Butylbenzene	DCBd 4	Lin1	10581 916592	15945 2625989	51183	169067	387375	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Lin1	10680 1026409	18970 2967237	57712	198788	443525	0.500 20.0	1.00 50.0	2.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	14819 1260585	25138 3598559	79025	245477	555985	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzyl chloride	DCBd 4	Lin	2357 164929	3283 571708	8682	25461	61797	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	9076 590310	15217 1739552	38521	115078	249927	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCBd 4	Ave	10622 585756	17026 1789854	42905	119997	255916	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	18780 1224341	29769 3574644	78547	245160	535975	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	13008 987009	20856 2891598	58174	185399	427282	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-138323-1 Analy Batch No.: 199119

SDG No.:

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/20/2016 09:50 Calibration End Date: 10/20/2016 12:15 Calibration ID: 10470

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dichlorobenzene	DCBd 4	Ave	7271 452391	12042 1370058	30582	90973	192467	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butylbenzene	DCBd 4	Ave	11717 944277	18457 2788929	52284	174296	405444	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 15531	724 44518	1494	3391	5905	+++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Lin1	7031 378514	8249 1143719	22373	70257	160210	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Lin1	3640 244162	5162 735445	13450	40982	98778	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Naphthalene	DCBd 4	Lin1	526 280247	5127 896919	13497	40751	104585	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexachlorobutadiene	DCBd 4	Lin1	1717 76593	2578 224943	5595	15959	32444	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	2170 161760	4196 479696	10440	29302	67620	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromofluoromethane	FB	Lin1	8059 275078	10178 758305	22085	63734	128129	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	4366 175690	6506 488762	14777	42616	79065	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	15889 984024	22879 2723362	62370	194099	443447	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Bromofluorobenzene	DCBd 4	Ave	4422 262591	6407 746572	16620	52900	116756	0.500 20.0	1.00 50.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab Sample ID: CCVIS 600-199328/3 Calibration Date: 10/22/2016 11:36

Instrument ID: CHVOAMS06 Calib Start Date: 10/07/2016 12:34

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 10/07/2016 15:25

Lab File ID: J29601.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1020	0.0796		7.81	10.0	-21.9	35.0
Chloromethane	Ave	0.2890	0.2520	0.1000	8.72	10.0	-12.8	35.0
Vinyl chloride	Ave	0.2325	0.2126		9.14	10.0	-8.6	20.0
Butadiene	Ave	0.2549	0.2314		9.08	10.0	-9.2	35.0
Bromomethane	Lin2		0.1144		8.60	10.0	-14.0	35.0
Chloroethane	Lin2		0.1478		8.56	10.0	-14.4	35.0
Dichlorofluoromethane	Lin1		0.3401		8.04	10.0	-19.6	50.0
Acetonitrile	Ave	0.0133	0.0135		102	100	1.7	50.0
Acrolein	Ave	0.0374	0.0339		45.3	50.0	-9.4	50.0
Trichlorofluoromethane	Lin2		0.2676		8.58	10.0	-14.3	35.0
Isopropyl alcohol	None		0.0122			100		50.0
Acetone	Qua		0.0569		27.2	20.0	36.2*	35.0
Ethyl ether	Ave	0.2411	0.2112		8.76	10.0	-12.4	35.0
t-Butanol	Qua		0.0301		145	100	44.6*	35.0
1,1-Dichloroethene	Ave	0.1693	0.1680		9.93	10.0	-0.7	20.0
Acrylonitrile	Ave	0.0622	0.0580		93.3	100	-6.7	50.0
Iodomethane	Ave	0.2327	0.2288		9.83	10.0	-1.7	35.0
Methylene Chloride	Lin1		0.2365		9.20	10.0	-8.0	50.0
Methyl acetate	Ave	0.1641	0.1515		46.2	50.0	-7.7	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1311	0.1266		9.65	10.0	-3.5	35.0
3-Chloro-1-propene	Ave	0.1189	0.1150		9.68	10.0	-3.2	35.0
Carbon disulfide	Ave	0.3057	0.2750		8.99	10.0	-10.1	35.0
trans-1,2-Dichloroethene	Ave	0.2157	0.2009		9.31	10.0	-6.9	35.0
Methyl tert-butyl ether	Ave	0.7707	0.6721		8.72	10.0	-12.8	35.0
Propionitrile	Qua		0.0253		115	100	15.1	35.0
1,1-Dichloroethane	Ave	0.5547	0.5137	0.1000	9.26	10.0	-7.4	35.0
Vinyl acetate	Ave	0.6603	0.5962		18.1	20.0	-9.7	50.0
2-Chloro-1,3-butadiene	Ave	0.7096	0.6606		9.31	10.0	-6.9	35.0
Hexane	Ave	0.4318	0.4137		9.58	10.0	-4.2	35.0
Isopropyl ether	Ave	1.570	1.453		9.26	10.0	-7.4	35.0
2-Butanone (MEK)	Lin1		0.0269		17.9	20.0	-10.5	50.0
Methacrylonitrile	Ave	0.0328	0.0274		83.6	100	-16.4	35.0
cis-1,2-Dichloroethene	Ave	0.2817	0.2511		8.91	10.0	-10.9	35.0
Ethyl acetate	Ave	0.3001	0.2436		16.2	20.0	-18.8	35.0
Chlorobromomethane	Ave	0.1159	0.1055		9.10	10.0	-9.0	35.0
Chloroform	Ave	0.4898	0.4309		8.80	10.0	-12.0	20.0
Tert-butyl ethyl ether	Ave	1.275	1.115		8.75	10.0	-12.5	35.0
Isobutyl alcohol	None		0.0202			250		50.0
2,2-Dichloropropane	Ave	0.2764	0.2465		8.92	10.0	-10.8	35.0
Tetrahydrofuran	Lin1		0.0770		17.2	20.0	-13.9	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab Sample ID: CCVIS 600-199328/3 Calibration Date: 10/22/2016 11:36

Instrument ID: CHVOAMS06 Calib Start Date: 10/07/2016 12:34

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 10/07/2016 15:25

Lab File ID: J29601.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane	Ave	0.3822	0.3143		8.23	10.0	-17.7	35.0
1,1,1-Trichloroethane	Ave	0.3931	0.3552		9.04	10.0	-9.6	35.0
1,1-Dichloropropene	Ave	0.3683	0.3422		9.29	10.0	-7.1	35.0
Cyclohexane	Ave	0.3550	0.3408		9.60	10.0	-4.0	35.0
Carbon tetrachloride	Ave	0.3404	0.3256		9.56	10.0	-4.4	35.0
Benzene	Ave	1.111	1.004		9.04	10.0	-9.6	35.0
2-Nitropropane	Ave	0.1985	0.1575		15.9	20.0	-20.7	35.0
Tert-amyl methyl ether	Ave	0.9019	0.7281		8.07	10.0	-19.3	35.0
Isooctane	Ave	1.214	1.202		9.90	10.0	-1.0	35.0
Ethyl acrylate	Ave	0.5184	0.4159		8.02	10.0	-19.8	35.0
n-Heptane	Ave	0.4968	0.4613		9.29	10.0	-7.1	35.0
Dibromomethane	Ave	0.1540	0.1288		8.37	10.0	-16.3	35.0
1,2-Dichloropropane	Ave	0.3650	0.3067		8.40	10.0	-16.0	20.0
Trichloroethene	Ave	0.2963	0.2587		8.73	10.0	-12.7	35.0
Bromodichloromethane	Ave	0.4175	0.3502		8.39	10.0	-16.1	35.0
1,4-Dioxane	Lin		0.0016		277	200	38.5	50.0
2-Chloroethyl vinyl ether	Ave	0.4580	0.4152		18.1	20.0	-9.4	35.0
Methyl methacrylate	Ave	0.1284	0.1207		18.8	20.0	-6.0	50.0
Methylcyclohexane	Ave	0.4359	0.4185		9.60	10.0	-4.0	35.0
cis-1,3-Dichloropropene	Ave	1.214	1.115		9.19	10.0	-8.1	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4378	0.3467		15.8	20.0	-20.8	50.0
trans-1,3-Dichloropropene	Ave	1.073	1.011		9.42	10.0	-5.8	35.0
n-Butyl acetate	Ave	0.4178	0.3788		9.07	10.0	-9.3	35.0
1,1,2-Trichloroethane	Ave	0.5881	0.5315		9.04	10.0	-9.6	35.0
Ethyl methacrylate	Ave	0.8792	0.7901		8.99	10.0	-10.1	50.0
Toluene	Ave	1.869	1.819		9.73	10.0	-2.7	20.0
1,3-Dichloropropane	Ave	1.052	0.9573		9.10	10.0	-9.0	35.0
2-Hexanone	Ave	0.6407	0.5708		17.8	20.0	-10.9	50.0
Dibromochloromethane	Ave	0.6755	0.6133		9.08	10.0	-9.2	35.0
1,2-Dibromoethane	Ave	0.5268	0.4666		8.86	10.0	-11.4	35.0
Tetrachloroethene	Ave	0.5661	0.5779		10.2	10.0	2.1	35.0
1-Chlorohexane	Ave	1.014	0.9826		9.69	10.0	-3.1	35.0
1,1,1,2-Tetrachloroethane	Ave	0.7459	0.6456		8.66	10.0	-13.5	35.0
Chlorobenzene	Ave	2.114	1.955	0.3000	9.25	10.0	-7.5	35.0
Ethylbenzene	Ave	1.180	1.097		9.29	10.0	-7.1	20.0
m-Xylene & p-Xylene	Ave	2.804	2.547		9.08	10.0	-9.2	35.0
Bromoform	Ave	0.6042	0.5032	0.1000	8.33	10.0	-16.7	35.0
Styrene	Ave	2.218	2.011		9.07	10.0	-9.3	35.0
o-Xylene	Ave	1.372	1.250		9.11	10.0	-8.9	35.0
1,1,2,2-Tetrachloroethane	Ave	1.061	0.8666	0.3000	8.17	10.0	-18.3	35.0
trans-1,4-Dichloro-2-butene	Ave	0.3838	0.3050		7.95	10.0	-20.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab Sample ID: CCVIS 600-199328/3 Calibration Date: 10/22/2016 11:36

Instrument ID: CHVOAMS06 Calib Start Date: 10/07/2016 12:34

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 10/07/2016 15:25

Lab File ID: J29601.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.3123	0.2635		8.44	10.0	-15.6	35.0
Isopropylbenzene	Ave	6.272	5.355		8.54	10.0	-14.6	35.0
Bromobenzene	Ave	1.417	1.213		8.56	10.0	-14.4	35.0
N-Propylbenzene	Ave	1.707	1.462		8.57	10.0	-14.3	35.0
2-Chlorotoluene	Ave	1.338	1.134		8.48	10.0	-15.2	35.0
4-Chlorotoluene	Ave	4.430	3.661		8.26	10.0	-17.4	35.0
1,3,5-Trimethylbenzene	Ave	4.780	3.662		7.66	10.0	-23.4	35.0
tert-Butylbenzene	Ave	4.077	3.142		7.71	10.0	-22.9	35.0
1,2,4-Trimethylbenzene	Ave	4.756	3.736		7.86	10.0	-21.5	35.0
sec-Butylbenzene	Ave	5.906	4.481		7.59	10.0	-24.1	35.0
Benzyl chloride	Ave	0.6722	0.8519		12.7	10.0	26.7	35.0
1,3-Dichlorobenzene	Ave	2.134	1.866		8.75	10.0	-12.5	35.0
1,4-Dichlorobenzene	Ave	1.850	1.695		9.16	10.0	-8.4	35.0
4-Isopropyltoluene	Ave	4.876	3.652		7.49	10.0	-25.1	35.0
1,2,3-Trimethylbenzene	Lin1		3.027		8.46	10.0	-15.4	35.0
1,2-Dichlorobenzene	Ave	1.122	1.168		10.4	10.0	4.1	35.0
n-Butylbenzene	Lin1		2.846		9.24	10.0	-7.6	35.0
1,3,5-Trichlorobenzene	None		0.0695			10.0	-95.8*	35.0
Naphthalene	Ave	0.1085	0.0874		8.06	10.0	-19.5	35.0
1,2,3-Trichlorobenzene	Qua		0.0190		6.00	10.0	-40.0*	35.0
1,2,4-Trichlorobenzene	None				0.177	10.0		
1,2-Dibromo-3-Chloropropane	None				0.810	10.0	-100.0*	35.0
Cyclohexanone	None				8.64	500	-100.0*	35.0
Hexachlorobutadiene	None				0.215	10.0		
Dibromofluoromethane	Ave	0.2339	0.2155		9.22	10.0	-7.8	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2951	0.2357		7.99	10.0	-20.1	35.0
Toluene-d8 (Surr)	Ave	2.385	2.340		9.81	10.0	-1.9	35.0
4-Bromofluorobenzene	Ave	1.678	1.336		7.96	10.0	-20.4	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab Sample ID: CCVIS 600-199231/2 Calibration Date: 10/21/2016 09:42

Instrument ID: CHVOAMS07 Calib Start Date: 10/20/2016 09:50

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 10/20/2016 12:15

Lab File ID: A29502.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3189	0.3494		11.0	10.0	9.6	35.0
Chloromethane	Lin2		0.1695	0.1000	11.7	10.0	16.8	35.0
Ethylene oxide	Lin		0.0040		93.1	100	-6.9	35.0
Vinyl chloride	Ave	0.2074	0.2457		11.9	10.0	18.5	20.0
Butadiene	Lin1		0.2510		12.3	10.0	23.2	35.0
Bromomethane	Qua		0.0937		13.4	10.0	34.4	35.0
Chloroethane	Lin2		0.1343		11.2	10.0	12.3	35.0
Dichlorofluoromethane	Lin2		0.4135		12.1	10.0	21.4	50.0
Acetonitrile	Lin2		0.0048		100	100	0.2	50.0
Acrolein	Lin1		0.0070		45.9	50.0	-8.2	50.0
Trichlorofluoromethane	Ave	0.4953	0.5213		10.5	10.0	5.3	35.0
Isopropyl alcohol	Lin1		0.0021		100	100	0.4	50.0
Acetone	Ave	0.0127	0.0105		16.6	20.0	-17.2	50.0
Ethyl ether	Ave	0.0905	0.0802		8.87	10.0	-11.3	35.0
t-Butanol	Lin1		0.0042		89.1	100	-11.0	35.0
1,1-Dichloroethene	Ave	0.2537	0.2642		10.4	10.0	4.1	20.0
Acrylonitrile	Ave	0.0142	0.0134		94.6	100	-5.4	50.0
Iodomethane	Lin		0.2281		10.7	10.0	7.1	35.0
Methylene Chloride	Lin2		0.2200		9.59	10.0	-4.1	50.0
Methyl acetate	Ave	0.0393	0.0357		45.5	50.0	-9.1	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.2976		10.9	10.0	9.0	35.0
3-Chloro-1-propene	Ave	0.1229	0.1264		10.3	10.0	2.8	35.0
Carbon disulfide	Lin1		0.7730		12.1	10.0	20.8	35.0
trans-1,2-Dichloroethene	Lin1		0.2670		9.63	10.0	-3.7	35.0
Methyl tert-butyl ether	Ave	0.2915	0.2577		8.84	10.0	-11.6	35.0
Propionitrile	Lin2		0.0050		86.2	100	-13.8	35.0
1,1-Dichloroethane	Ave	0.4142	0.4067	0.1000	9.82	10.0	-1.8	35.0
Vinyl acetate	Lin2		0.0990		17.2	20.0	-14.0	50.0
2-Chloro-1,3-butadiene	Lin1		0.3351		9.85	10.0	-1.5	35.0
Hexane	Ave	0.2899	0.3432		11.8	10.0	18.4	35.0
2-Butanone (MEK)	Lin2		0.0084		17.0	20.0	-14.9	50.0
Isopropyl ether	Ave	0.5091	0.5057		9.93	10.0	-0.7	35.0
Methacrylonitrile	Ave	0.0095	0.0090		94.4	100	-5.6	35.0
cis-1,2-Dichloroethene	Lin1		0.2983		9.93	10.0	-0.7	35.0
Ethyl acetate	Lin1		0.0409		15.6	20.0	-21.8	35.0
Chlorobromomethane	Ave	0.1181	0.1086		9.19	10.0	-8.1	35.0
Chloroform	Ave	0.4982	0.4546		9.12	10.0	-8.8	20.0
Tert-butyl ethyl ether	Ave	0.3991	0.3760		9.42	10.0	-5.8	35.0
Isobutyl alcohol	Lin2		0.0037		246	250	-1.6	50.0
2,2-Dichloropropane	Ave	0.4144	0.4309		10.4	10.0	4.0	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab Sample ID: CCVIS 600-199231/2 Calibration Date: 10/21/2016 09:42

Instrument ID: CHVOAMS07 Calib Start Date: 10/20/2016 09:50

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 10/20/2016 12:15

Lab File ID: A29502.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0136	0.0105		15.5	20.0	-22.6	35.0
1,2-Dichloroethane	Lin1		0.1693		8.91	10.0	-10.9	35.0
1,1,1-Trichloroethane	Lin1		0.5116		10.2	10.0	2.2	35.0
1,1-Dichloropropene	Ave	0.3263	0.3483		10.7	10.0	6.7	35.0
Cyclohexane	Lin1		0.4311		10.9	10.0	8.5	35.0
Carbon tetrachloride	Ave	0.4861	0.5081		10.5	10.0	4.5	35.0
Benzene	Ave	1.068	1.041		9.75	10.0	-2.5	35.0
2-Nitropropane	Lin1		0.0419		16.8	20.0	-16.1	35.0
Tert-amyl methyl ether	Ave	0.3196	0.2956		9.25	10.0	-7.5	35.0
Isooctane	Ave	0.5658	0.6328		11.2	10.0	11.8	35.0
Ethyl acrylate	Ave	0.1197	0.1122		9.37	10.0	-6.3	35.0
n-Heptane	Lin1		0.2664		11.0	10.0	9.8	35.0
Dibromomethane	Ave	0.0876	0.0796		9.09	10.0	-9.1	35.0
1,2-Dichloropropane	Ave	0.1935	0.1820		9.40	10.0	-6.0	20.0
Trichloroethene	Ave	0.3784	0.3751		9.91	10.0	-0.9	35.0
Bromodichloromethane	Ave	0.2714	0.2583		9.52	10.0	-4.8	35.0
Methyl methacrylate	Lin1		0.0464		16.2	20.0	-19.2	50.0
1,4-Dioxane	Lin1		0.0003		149	200	-25.8	50.0
2-Chloroethyl vinyl ether	Qua		0.0197		62.3	20.0	211.6*	35.0
Methylcyclohexane	Lin1		0.4327		10.4	10.0	3.5	35.0
cis-1,3-Dichloropropene	Ave	0.8883	0.8772		9.87	10.0	-1.3	35.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.0371		15.6	20.0	-22.1	50.0
trans-1,3-Dichloropropene	Lin1		0.5331		8.68	10.0	-13.2	35.0
1,1,2-Trichloroethane	Lin2		0.3955		10.1	10.0	1.3	35.0
Ethyl methacrylate	Lin1		0.3027		8.30	10.0	-17.0	50.0
Toluene	Ave	2.314	2.557		11.1	10.0	10.5	20.0
1,3-Dichloropropane	Ave	0.6893	0.6728		9.76	10.0	-2.4	35.0
2-Hexanone	Lin		0.0737		16.2	20.0	-18.8	50.0
Dibromochloromethane	Ave	0.5594	0.5226		9.34	10.0	-6.6	35.0
n-Butyl acetate	Lin		0.1815		7.37	10.0	-26.3	35.0
1,2-Dibromoethane	Lin2		0.3319		9.29	10.0	-7.1	35.0
Tetrachloroethene	Ave	0.9010	0.9727		10.8	10.0	8.0	35.0
1,1,1,2-Tetrachloroethane	Ave	0.8992	0.8714		9.69	10.0	-3.1	35.0
1-Chlorohexane	Lin1		0.6507		10.3	10.0	3.0	35.0
Chlorobenzene	Ave	2.564	2.462	0.3000	9.61	10.0	-3.9	35.0
Ethylbenzene	Ave	1.306	1.458		11.2	10.0	11.7	20.0
m-Xylene & p-Xylene	Lin1		3.051		10.1	10.0	0.6	35.0
Bromoform	Lin1		0.1815	0.1000	9.17	10.0	-8.3	35.0
Styrene	Lin1		1.764		8.78	10.0	-12.2	35.0
Cyclohexanone	Lin1		0.0051		482	500	-3.6	35.0
1,1,2,2-Tetrachloroethane	Lin1		0.3341	0.3000	9.49	10.0	-5.1	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab Sample ID: CCVIS 600-199231/2 Calibration Date: 10/21/2016 09:42

Instrument ID: CHVOAMS07 Calib Start Date: 10/20/2016 09:50

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 10/20/2016 12:15

Lab File ID: A29502.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
o-Xylene	Lin1		1.690		10.3	10.0	2.6	35.0
trans-1,4-Dichloro-2-butene	Ave	0.0545	0.0472		8.67	10.0	-13.3	50.0
1,2,3-Trichloropropane	Lin1		0.1017		9.07	10.0	-9.3	35.0
Isopropylbenzene	Lin1		4.209		11.0	10.0	9.6	35.0
Bromobenzene	Ave	0.8233	0.7828		9.51	10.0	-4.9	35.0
N-Propylbenzene	Lin1		1.232		10.7	10.0	6.9	35.0
2-Chlorotoluene	Ave	0.9621	1.050		10.9	10.0	9.1	35.0
4-Chlorotoluene	Ave	2.421	2.602		10.8	10.0	7.5	35.0
1,3,5-Trimethylbenzene	Lin1		3.472		10.7	10.0	7.1	35.0
tert-Butylbenzene	Lin1		3.082		10.6	10.0	6.2	35.0
1,2,4-Trimethylbenzene	Lin1		3.435		10.5	10.0	4.6	35.0
sec-Butylbenzene	Ave	3.838	4.535		11.8	10.0	18.1	35.0
Benzyl chloride	Lin		0.5020		9.08	10.0	-9.2	35.0
1,3-Dichlorobenzene	Ave	1.933	1.941		10.0	10.0	0.4	35.0
1,4-Dichlorobenzene	Ave	2.071	1.971		9.52	10.0	-4.8	35.0
4-Isopropyltoluene	Ave	4.001	4.226		10.6	10.0	5.6	35.0
1,2,3-Trimethylbenzene	Ave	3.033	3.202		10.6	10.0	5.6	35.0
1,2-Dichlorobenzene	Ave	1.520	1.498		9.86	10.0	-1.5	35.0
n-Butylbenzene	Ave	2.821	3.361		11.9	10.0	19.1	35.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0451		8.62	10.0	-13.8	35.0
1,3,5-Trichlorobenzene	Lin1		1.193		9.57	10.0	-4.3	35.0
1,2,4-Trichlorobenzene	Lin1		0.7017		8.90	10.0	-11.0	35.0
Naphthalene	Lin1		0.7260		8.09	10.0	-19.1	35.0
Hexachlorobutadiene	Lin1		0.2714		10.7	10.0	7.0	35.0
1,2,3-Trichlorobenzene	Ave	0.5125	0.5043		9.84	10.0	-1.6	35.0
Dibromofluoromethane	Lin1		0.2538		9.66	10.0	-3.5	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.1761	0.1461		8.30	10.0	-17.0	35.0
Toluene-d8 (Surr)	Ave	3.093	3.403		11.0	10.0	10.0	35.0
4-Bromofluorobenzene	Ave	0.8702	0.8425		9.68	10.0	-3.2	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab Sample ID: CCVIS 600-199311/2 Calibration Date: 10/22/2016 09:13

Instrument ID: CHVOAMS07 Calib Start Date: 10/20/2016 09:50

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 10/20/2016 12:15

Lab File ID: A29601.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3189	0.3008		9.43	10.0	-5.7	35.0
Chloromethane	Lin2		0.1521	0.1000	10.5	10.0	4.6	35.0
Ethylene oxide	Lin		0.0034		73.5	100	-26.5	35.0
Vinyl chloride	Ave	0.2074	0.2234		10.8	10.0	7.7	20.0
Butadiene	Lin1		0.2343		11.5	10.0	14.9	35.0
Bromomethane	Qua		0.0805		11.8	10.0	17.9	35.0
Chloroethane	Lin2		0.1283		10.7	10.0	7.2	35.0
Dichlorofluoromethane	Lin2		0.3925		11.5	10.0	15.1	50.0
Acrolein	Lin1		0.0066		42.9	50.0	-14.1	50.0
Acetonitrile	Lin2		0.0048		99.5	100	-0.5	50.0
Trichlorofluoromethane	Ave	0.4953	0.4952		10.00	10.0	-0.0	35.0
Isopropyl alcohol	Lin1		0.0019		92.5	100	-7.5	50.0
Acetone	Ave	0.0127	0.0111		17.4	20.0	-12.8	50.0
Ethyl ether	Ave	0.0905	0.0782		8.64	10.0	-13.6	35.0
t-Butanol	Lin1		0.0039		82.8	100	-17.2	35.0
1,1-Dichloroethene	Ave	0.2537	0.2717		10.7	10.0	7.1	20.0
Acrylonitrile	Ave	0.0142	0.0133		93.8	100	-6.2	50.0
Iodomethane	Lin		0.1901		9.16	10.0	-8.4	35.0
Methylene Chloride	Lin2		0.2115		9.13	10.0	-8.7	50.0
Methyl acetate	Ave	0.0393	0.0359		45.7	50.0	-8.6	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.2979		10.9	10.0	9.1	35.0
3-Chloro-1-propene	Ave	0.1229	0.1340		10.9	10.0	9.0	35.0
Carbon disulfide	Lin1		0.7799		12.2	10.0	21.9	35.0
trans-1,2-Dichloroethene	Lin1		0.2870		10.4	10.0	3.6	35.0
Methyl tert-butyl ether	Ave	0.2915	0.2743		9.41	10.0	-5.9	35.0
Propionitrile	Lin2		0.0047		80.8	100	-19.2	35.0
1,1-Dichloroethane	Ave	0.4142	0.4153	0.1000	10.0	10.0	0.2	35.0
Vinyl acetate	Lin2		0.1061		18.4	20.0	-8.2	50.0
2-Chloro-1,3-butadiene	Lin1		0.3492		10.3	10.0	2.6	35.0
Hexane	Ave	0.2899	0.3542		12.2	10.0	22.2	35.0
Isopropyl ether	Ave	0.5091	0.5055		9.93	10.0	-0.7	35.0
2-Butanone (MEK)	Lin2		0.0091		18.5	20.0	-7.5	50.0
Methacrylonitrile	Ave	0.0095	0.0091		95.6	100	-4.4	35.0
cis-1,2-Dichloroethene	Lin1		0.3028		10.1	10.0	0.8	35.0
Ethyl acetate	Lin1		0.0439		16.8	20.0	-16.3	35.0
Chlorobromomethane	Ave	0.1181	0.1131		9.58	10.0	-4.2	35.0
Chloroform	Ave	0.4982	0.4654		9.34	10.0	-6.6	20.0
Isobutyl alcohol	Lin2		0.0032		217	250	-13.2	50.0
Tert-butyl ethyl ether	Ave	0.3991	0.3720		9.32	10.0	-6.8	35.0
2,2-Dichloropropane	Ave	0.4144	0.4377		10.6	10.0	5.6	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab Sample ID: CCVIS 600-199311/2 Calibration Date: 10/22/2016 09:13

Instrument ID: CHVOAMS07 Calib Start Date: 10/20/2016 09:50

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 10/20/2016 12:15

Lab File ID: A29601.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0136	0.0111		16.3	20.0	-18.4	35.0
1,2-Dichloroethane	Lin1		0.1690		8.90	10.0	-11.1	35.0
1,1,1-Trichloroethane	Lin1		0.5155		10.3	10.0	3.0	35.0
1,1-Dichloropropene	Ave	0.3263	0.3770		11.6	10.0	15.5	35.0
Cyclohexane	Lin1		0.4419		11.1	10.0	11.2	35.0
Carbon tetrachloride	Ave	0.4861	0.5188		10.7	10.0	6.7	35.0
Benzene	Ave	1.068	1.064		9.96	10.0	-0.4	35.0
2-Nitropropane	Lin1		0.0396		15.9	20.0	-20.6	35.0
Tert-amyl methyl ether	Ave	0.3196	0.3048		9.54	10.0	-4.6	35.0
Isooctane	Ave	0.5658	0.6547		11.6	10.0	15.7	35.0
Ethyl acrylate	Ave	0.1197	0.1116		9.33	10.0	-6.7	35.0
n-Heptane	Lin1		0.2746		11.3	10.0	13.2	35.0
Dibromomethane	Ave	0.0876	0.0780		8.90	10.0	-11.0	35.0
1,2-Dichloropropane	Ave	0.1935	0.1862		9.62	10.0	-3.8	20.0
Trichloroethene	Ave	0.3784	0.3821		10.1	10.0	1.0	35.0
Bromodichloromethane	Ave	0.2714	0.2612		9.62	10.0	-3.8	35.0
Methyl methacrylate	Lin1		0.0487		16.9	20.0	-15.5	50.0
1,4-Dioxane	Lin1		0.0003		122	200	-39.0	50.0
2-Chloroethyl vinyl ether	Qua		0.0136		36.9	20.0	84.4*	35.0
Methylcyclohexane	Lin1		0.4557		10.9	10.0	8.9	35.0
cis-1,3-Dichloropropene	Ave	0.8883	0.8580		9.66	10.0	-3.4	35.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.0363		15.3	20.0	-23.7	50.0
trans-1,3-Dichloropropene	Lin1		0.5214		8.50	10.0	-15.0	35.0
1,1,2-Trichloroethane	Lin2		0.3573		9.13	10.0	-8.7	35.0
Ethyl methacrylate	Lin1		0.2770		7.66	10.0	-23.4	50.0
Toluene	Ave	2.314	2.472		10.7	10.0	6.8	20.0
1,3-Dichloropropane	Ave	0.6893	0.6470		9.39	10.0	-6.1	35.0
2-Hexanone	Lin		0.0758		16.6	20.0	-17.0	50.0
Dibromochloromethane	Ave	0.5594	0.5006		8.95	10.0	-10.5	35.0
n-Butyl acetate	Lin		0.1652		6.84	10.0	-31.6	35.0
1,2-Dibromoethane	Lin2		0.3068		8.62	10.0	-13.9	35.0
1,1,1,2-Tetrachloroethane	Ave	0.8992	0.8549		9.51	10.0	-4.9	35.0
Tetrachloroethene	Ave	0.9010	0.9311		10.3	10.0	3.3	35.0
1-Chlorohexane	Lin1		0.6316		10.0	10.0	0.0	35.0
Chlorobenzene	Ave	2.564	2.321	0.3000	9.05	10.0	-9.5	35.0
Ethylbenzene	Ave	1.306	1.446		11.1	10.0	10.7	20.0
m-Xylene & p-Xylene	Lin1		3.056		10.1	10.0	0.8	35.0
Bromoform	Lin1		0.1894	0.1000	9.58	10.0	-4.2	35.0
Styrene	Lin1		1.730		8.62	10.0	-13.8	35.0
Cyclohexanone	Lin1		0.0040		390	500	-22.1	35.0
1,1,2,2-Tetrachloroethane	Lin1		0.3426	0.3000	9.73	10.0	-2.7	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Lab Sample ID: CCVIS 600-199311/2 Calibration Date: 10/22/2016 09:13

Instrument ID: CHVOAMS07 Calib Start Date: 10/20/2016 09:50

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 10/20/2016 12:15

Lab File ID: A29601.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
o-Xylene	Lin1		1.643		9.98	10.0	-0.2	35.0
trans-1,4-Dichloro-2-butene	Ave	0.0545	0.0510		9.35	10.0	-6.5	50.0
1,2,3-Trichloropropane	Lin1		0.0941		8.32	10.0	-16.8	35.0
Isopropylbenzene	Lin1		4.414		11.5	10.0	14.8	35.0
Bromobenzene	Ave	0.8233	0.7932		9.64	10.0	-3.7	35.0
N-Propylbenzene	Lin1		1.276		11.1	10.0	10.7	35.0
2-Chlorotoluene	Ave	0.9621	1.102		11.5	10.0	14.6	35.0
4-Chlorotoluene	Ave	2.421	2.764		11.4	10.0	14.2	35.0
1,3,5-Trimethylbenzene	Lin1		3.648		11.2	10.0	12.4	35.0
tert-Butylbenzene	Lin1		3.216		11.1	10.0	10.7	35.0
1,2,4-Trimethylbenzene	Lin1		3.547		10.8	10.0	8.0	35.0
sec-Butylbenzene	Ave	3.838	4.658		12.1	10.0	21.4	35.0
Benzyl chloride	Lin		0.4718		8.60	10.0	-14.0	35.0
1,3-Dichlorobenzene	Ave	1.933	2.022		10.5	10.0	4.6	35.0
1,4-Dichlorobenzene	Ave	2.071	1.979		9.56	10.0	-4.4	35.0
4-Isopropyltoluene	Ave	4.001	4.450		11.1	10.0	11.2	35.0
1,2,3-Trimethylbenzene	Ave	3.033	3.305		10.9	10.0	9.0	35.0
1,2-Dichlorobenzene	Ave	1.520	1.485		9.77	10.0	-2.3	35.0
n-Butylbenzene	Ave	2.821	3.413		12.1	10.0	21.0	35.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0371		6.96	10.0	-30.4	35.0
1,3,5-Trichlorobenzene	Lin1		1.196		9.60	10.0	-4.1	35.0
1,2,4-Trichlorobenzene	Lin1		0.6799		8.63	10.0	-13.7	35.0
Naphthalene	Lin1		0.6527		7.33	10.0	-26.8	35.0
Hexachlorobutadiene	Lin1		0.2744		10.8	10.0	8.2	35.0
1,2,3-Trichlorobenzene	Ave	0.5125	0.4418		8.62	10.0	-13.8	35.0
Dibromofluoromethane	Lin1		0.2627		10.00	10.0	-0.0	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.1761	0.1539		8.74	10.0	-12.6	35.0
Toluene-d8 (Surr)	Ave	3.093	3.320		10.7	10.0	7.3	35.0
4-Bromofluorobenzene	Ave	0.8702	0.8739		10.0	10.0	0.4	35.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-199231/6

Matrix: Water | Lab File ID: A29505.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 11:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		50-134
460-00-4	4-Bromofluorobenzene	79		67-139
1868-53-7	Dibromofluoromethane	87		62-130
2037-26-5	Toluene-d8 (Surr)	107		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-199311/6

Matrix: Water | Lab File ID: A29605.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 11:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	73		50-134
460-00-4	4-Bromofluorobenzene	81		67-139
1868-53-7	Dibromofluoromethane	81		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-199328/7

Matrix: Water | Lab File ID: J29605.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 13:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199328 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	72		50-134
460-00-4	4-Bromofluorobenzene	72		67-139
1868-53-7	Dibromofluoromethane	80		62-130
2037-26-5	Toluene-d8 (Surr)	87		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-199231/3

Matrix: Water | Lab File ID: A29502a.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 10:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009523		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01068		0.00100	0.000192
71-43-2	Benzene	0.009778		0.00100	0.000176
91-20-3	Naphthalene	0.008543		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01017		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		50-134
460-00-4	4-Bromofluorobenzene	84		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	94		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-199311/3

Matrix: Water | Lab File ID: A29602.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 09:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009701		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01028		0.00100	0.000192
71-43-2	Benzene	0.009737		0.00100	0.000176
91-20-3	Naphthalene	0.007889		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01032		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	67		50-134
460-00-4	4-Bromofluorobenzene	83		67-139
1868-53-7	Dibromofluoromethane	80		62-130
2037-26-5	Toluene-d8 (Surr)	92		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-199328/4

Matrix: Water | Lab File ID: J29602.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199328 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009674		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01029		0.00100	0.000192
71-43-2	Benzene	0.009762		0.00100	0.000176
91-20-3	Naphthalene	0.01000		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01060		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	71		50-134
460-00-4	4-Bromofluorobenzene	84		67-139
1868-53-7	Dibromofluoromethane	82		62-130
2037-26-5	Toluene-d8 (Surr)	89		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 600-199231/4

Matrix: Water | Lab File ID: A29503.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 10:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009350		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.009830		0.00100	0.000192
71-43-2	Benzene	0.009391		0.00100	0.000176
91-20-3	Naphthalene	0.008353		0.00200	0.000129
127-18-4	Tetrachloroethene	0.009978		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	76		50-134
460-00-4	4-Bromofluorobenzene	82		67-139
1868-53-7	Dibromofluoromethane	85		62-130
2037-26-5	Toluene-d8 (Surr)	94		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 600-199311/4

Matrix: Water | Lab File ID: A29603.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 10:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009401		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01002		0.00100	0.000192
71-43-2	Benzene	0.009807		0.00100	0.000176
91-20-3	Naphthalene	0.008695		0.00200	0.000129
127-18-4	Tetrachloroethene	0.009851		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	69		50-134
460-00-4	4-Bromofluorobenzene	82		67-139
1868-53-7	Dibromofluoromethane	80		62-130
2037-26-5	Toluene-d8 (Surr)	92		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 600-199328/5

Matrix: Water | Lab File ID: J29603.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 12:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199328 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009251		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.009275		0.00100	0.000192
71-43-2	Benzene	0.008947		0.00100	0.000176
91-20-3	Naphthalene	0.007832		0.00200	0.000129
127-18-4	Tetrachloroethene	0.009944		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		50-134
460-00-4	4-Bromofluorobenzene	85		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	91		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW11-10122016 MS | Lab Sample ID: 600-138323-5 MS

Matrix: Water | Lab File ID: A29525.d

Analysis Method: 8260B | Date Collected: 10/12/2016 12:40

Sample wt/vol: 20(mL) | Date Analyzed: 10/21/2016 19:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199231 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01534		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01025		0.00100	0.000192
71-43-2	Benzene	0.009478		0.00100	0.000176
91-20-3	Naphthalene	0.007783		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01061		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	67		50-134
460-00-4	4-Bromofluorobenzene	79		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	91		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW28-10122016 MS Lab Sample ID: 600-138323-13 MS

Matrix: Water Lab File ID: A29617.d

Analysis Method: 8260B Date Collected: 10/12/2016 15:30

Sample wt/vol: 20(mL) Date Analyzed: 10/22/2016 15:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 199311 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01456		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.02057		0.00100	0.000192
71-43-2	Benzene	0.01011		0.00100	0.000176
91-20-3	Naphthalene	0.007166		0.00200	0.000129
127-18-4	Tetrachloroethene	0.02373		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	73		50-134
460-00-4	4-Bromofluorobenzene	78		67-139
1868-53-7	Dibromofluoromethane	87		62-130
2037-26-5	Toluene-d8 (Surr)	88		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW34-10122016 MS | Lab Sample ID: 600-138323-14 MS

Matrix: Water | Lab File ID: J29613.D

Analysis Method: 8260B | Date Collected: 10/12/2016 16:00

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 17:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199328 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01127		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01545		0.00100	0.000192
71-43-2	Benzene	0.009304		0.00100	0.000176
91-20-3	Naphthalene	0.006823		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01481		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		50-134
460-00-4	4-Bromofluorobenzene	76		67-139
1868-53-7	Dibromofluoromethane	78		62-130
2037-26-5	Toluene-d8 (Surr)	83		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW11-10122016 MSD Lab Sample ID: 600-138323-5 MSD

Matrix: Water Lab File ID: A29526.d

Analysis Method: 8260B Date Collected: 10/12/2016 12:40

Sample wt/vol: 20(mL) Date Analyzed: 10/21/2016 20:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 199231 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01195		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01021		0.00100	0.000192
71-43-2	Benzene	0.009799		0.00100	0.000176
91-20-3	Naphthalene	0.008818		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01036		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	68		50-134
460-00-4	4-Bromofluorobenzene	83		67-139
1868-53-7	Dibromofluoromethane	82		62-130
2037-26-5	Toluene-d8 (Surr)	89		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW28-10122016 MSD | Lab Sample ID: 600-138323-13 MSD

Matrix: Water | Lab File ID: A29618.d

Analysis Method: 8260B | Date Collected: 10/12/2016 15:30

Sample wt/vol: 20(mL) | Date Analyzed: 10/22/2016 16:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 199311 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01471		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.02131		0.00100	0.000192
71-43-2	Benzene	0.009613		0.00100	0.000176
91-20-3	Naphthalene	0.008579		0.00200	0.000129
127-18-4	Tetrachloroethene	0.02527		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	72		50-134
460-00-4	4-Bromofluorobenzene	84		67-139
1868-53-7	Dibromofluoromethane	86		62-130
2037-26-5	Toluene-d8 (Surr)	89		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Client Sample ID: ARTESIA-MW34-10122016 MSD Lab Sample ID: 600-138323-14 MSD

Matrix: Water Lab File ID: J29614.D

Analysis Method: 8260B Date Collected: 10/12/2016 16:00

Sample wt/vol: 20(mL) Date Analyzed: 10/22/2016 17:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 199328 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01114		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01612		0.00100	0.000192
71-43-2	Benzene	0.008998		0.00100	0.000176
91-20-3	Naphthalene	0.006300		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01507		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	72		50-134
460-00-4	4-Bromofluorobenzene	77		67-139
1868-53-7	Dibromofluoromethane	82		62-130
2037-26-5	Toluene-d8 (Surr)	85		70-130

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS06 Start Date: 10/07/2016 12:06

Analysis Batch Number: 198309 End Date: 10/07/2016 23:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-198309/2		10/07/2016 12:06	1	J28100C.D	DB-VRX 60 0.25(mm)
IC 600-198309/3		10/07/2016 12:34	1	J28101.D	DB-VRX 60 0.25(mm)
IC 600-198309/4		10/07/2016 13:03	1	J28102.D	DB-VRX 60 0.25(mm)
IC 600-198309/5		10/07/2016 13:31	1	J28103.D	DB-VRX 60 0.25(mm)
IC 600-198309/6		10/07/2016 14:00	1	J28104.D	DB-VRX 60 0.25(mm)
ICIS 600-198309/7		10/07/2016 14:28	1	J28105.D	DB-VRX 60 0.25(mm)
IC 600-198309/8		10/07/2016 14:57	1	J28106.D	DB-VRX 60 0.25(mm)
IC 600-198309/9		10/07/2016 15:25	1	J28107.D	DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 16:51	1		DB-VRX 60 0.25(mm)
ICV 600-198309/1012		10/07/2016 16:51	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 17:19	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 18:16	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 18:45	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 19:13	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 19:41	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 20:09	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 20:38	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 21:06	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 21:35	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 22:03	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 22:31	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 23:00	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/07/2016 23:28	1		DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS06 Start Date: 10/22/2016 11:08

Analysis Batch Number: 199328 End Date: 10/22/2016 22:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-199328/1		10/22/2016 11:08	1	J29600.D	DB-VRX 60 0.25(mm)
CCVIS 600-199328/3		10/22/2016 11:36	1	J29601.D	DB-VRX 60 0.25(mm)
LCS 600-199328/4		10/22/2016 12:18	1	J29602.D	DB-VRX 60 0.25(mm)
LCSD 600-199328/5		10/22/2016 12:46	1	J29603.D	DB-VRX 60 0.25(mm)
MB 600-199328/7		10/22/2016 13:43	1	J29605.D	DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 14:11	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 14:39	1		DB-VRX 60 0.25(mm)
600-138323-15		10/22/2016 15:08	1	J29608.D	DB-VRX 60 0.25(mm)
600-138323-16		10/22/2016 15:36	1	J29609.D	DB-VRX 60 0.25(mm)
600-138323-18		10/22/2016 16:04	1	J29610.D	DB-VRX 60 0.25(mm)
600-138323-19		10/22/2016 16:33	1	J29611.D	DB-VRX 60 0.25(mm)
600-138323-14		10/22/2016 17:01	1	J29612.D	DB-VRX 60 0.25(mm)
600-138323-14 MS		10/22/2016 17:30	1	J29613.D	DB-VRX 60 0.25(mm)
600-138323-14 MSD		10/22/2016 17:58	1	J29614.D	DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 18:26	500		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 18:54	500		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 19:23	25		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 19:51	100		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 20:19	250		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 20:48	20		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 21:16	20		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 21:44	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 22:12	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 22:41	1		DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS07 Start Date: 10/20/2016 09:14

Analysis Batch Number: 199119 End Date: 10/20/2016 20:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-199119/1		10/20/2016 09:14	1	A29400a.d	DB-VRX 60 0.25(mm)
IC 600-199119/2		10/20/2016 09:50	1	A29401.d	DB-VRX 60 0.25(mm)
IC 600-199119/3		10/20/2016 10:14	1	A29402.d	DB-VRX 60 0.25(mm)
IC 600-199119/4		10/20/2016 10:38	1	A29403.d	DB-VRX 60 0.25(mm)
IC 600-199119/5		10/20/2016 11:02	1	A29404.d	DB-VRX 60 0.25(mm)
ICIS 600-199119/6		10/20/2016 11:26	1	A29405.d	DB-VRX 60 0.25(mm)
IC 600-199119/7		10/20/2016 11:50	1	A29406.d	DB-VRX 60 0.25(mm)
IC 600-199119/8		10/20/2016 12:15	1	A29407.d	DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 14:56	1		DB-VRX 60 0.25(mm)
ICV 600-199119/10		10/20/2016 15:40	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 15:40	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 16:29	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 16:53	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 17:17	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 17:42	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 18:06	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 18:30	10		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 18:54	5		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 19:18	5		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 19:42	5		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 20:06	5		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 20:30	5		DB-VRX 60 0.25(mm)
ZZZZZ		10/20/2016 20:54	5		DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS07 Start Date: 10/21/2016 08:18

Analysis Batch Number: 199231 End Date: 10/21/2016 20:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-199231/1		10/21/2016 08:18	1	A29500.d	DB-VRX 60 0.25(mm)
CCVIS 600-199231/2		10/21/2016 09:42	1	A29502.d	DB-VRX 60 0.25(mm)
LCS 600-199231/3		10/21/2016 10:26	1	A29502a.d	DB-VRX 60 0.25(mm)
LCSD 600-199231/4		10/21/2016 10:50	1	A29503.d	DB-VRX 60 0.25(mm)
MB 600-199231/6		10/21/2016 11:38	1	A29505.d	DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 12:02	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 12:26	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 12:50	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 13:15	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 13:39	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 14:03	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 14:27	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 14:51	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 15:15	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 15:39	1		DB-VRX 60 0.25(mm)
600-138323-5		10/21/2016 16:03	1	A29516.d	DB-VRX 60 0.25(mm)
600-138323-2		10/21/2016 16:27	1	A29517.d	DB-VRX 60 0.25(mm)
600-138323-1		10/21/2016 16:51	1	A29518.d	DB-VRX 60 0.25(mm)
600-138323-3		10/21/2016 17:15	1	A29519.d	DB-VRX 60 0.25(mm)
600-138323-4		10/21/2016 17:39	1	A29520.d	DB-VRX 60 0.25(mm)
600-138323-6		10/21/2016 18:03	1	A29521.d	DB-VRX 60 0.25(mm)
600-138323-7		10/21/2016 18:27	1	A29522.d	DB-VRX 60 0.25(mm)
600-138323-8		10/21/2016 18:50	1	A29523.d	DB-VRX 60 0.25(mm)
ZZZZZ		10/21/2016 19:14	1		DB-VRX 60 0.25(mm)
600-138323-5 MS		10/21/2016 19:38	1	A29525.d	DB-VRX 60 0.25(mm)
600-138323-5 MSD		10/21/2016 20:02	1	A29526.d	DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-138323-1

SDG No.:

Instrument ID: CHVOAMS07 Start Date: 10/22/2016 08:46

Analysis Batch Number: 199311 End Date: 10/22/2016 20:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-199311/1		10/22/2016 08:46	1	A29600a.d	DB-VRX 60 0.25(mm)
CCVIS 600-199311/2		10/22/2016 09:13	1	A29601.d	DB-VRX 60 0.25(mm)
LCS 600-199311/3		10/22/2016 09:58	1	A29602.d	DB-VRX 60 0.25(mm)
LCSD 600-199311/4		10/22/2016 10:21	1	A29603.d	DB-VRX 60 0.25(mm)
MB 600-199311/6		10/22/2016 11:16	1	A29605.d	DB-VRX 60 0.25(mm)
600-138323-17		10/22/2016 11:40	1	A29606.d	DB-VRX 60 0.25(mm)
600-138323-3		10/22/2016 12:03	1	A29607.d	DB-VRX 60 0.25(mm)
600-138323-4		10/22/2016 12:27	1	A29608.d	DB-VRX 60 0.25(mm)
600-138323-13		10/22/2016 12:51	1	A29609.d	DB-VRX 60 0.25(mm)
600-138323-9		10/22/2016 13:18	1	A29610.d	DB-VRX 60 0.25(mm)
600-138323-10		10/22/2016 13:41	1	A29612.d	DB-VRX 60 0.25(mm)
600-138323-11		10/22/2016 14:05	1	A29613.d	DB-VRX 60 0.25(mm)
600-138323-12		10/22/2016 14:29	1	A29614.d	DB-VRX 60 0.25(mm)
600-138323-1		10/22/2016 14:53	1	A29615.d	DB-VRX 60 0.25(mm)
600-138323-20		10/22/2016 15:17	1	A29616.d	DB-VRX 60 0.25(mm)
600-138323-13 MS		10/22/2016 15:41	1	A29617.d	DB-VRX 60 0.25(mm)
600-138323-13 MSD		10/22/2016 16:06	1	A29618.d	DB-VRX 60 0.25(mm)
600-138323-2 DL		10/22/2016 16:30	20	A29619.d	DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 16:54	1		DB-VRX 60 0.25(mm)
600-138323-21		10/22/2016 17:18	1	A29621.d	DB-VRX 60 0.25(mm)
600-138323-22		10/22/2016 17:42	1	A29622.d	DB-VRX 60 0.25(mm)
600-138323-23		10/22/2016 18:06	1	A29623.d	DB-VRX 60 0.25(mm)
600-138323-24		10/22/2016 18:30	1	A29624.d	DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 18:54	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 19:18	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 19:42	1		DB-VRX 60 0.25(mm)
ZZZZZ		10/22/2016 20:06	1		DB-VRX 60 0.25(mm)

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Corpus Christi Job Number: 600-138323-1

SDG No.:

Project: Dowell - Artesia Groundwater

Client Sample ID	Lab Sample ID
ARTESIA-MW18-10122016	600-138323-6
ARTESIA-MW21-10122016	600-138323-8
ARTESIA-MW31-10122016	600-138323-9
ARTESIA-MW22-10122016	600-138323-10
ARTESIA-MW25-10122016	600-138323-11
ARTESIA-MW26-10122016	600-138323-12
ARTESIA-MW28-10122016	600-138323-13
ARTESIA-MW34-10122016	600-138323-14
ARTESIA-MW29-10122016	600-138323-15
ARTESIA-MW30-10122016	600-138323-16
ARTESIA-MW32-10132016	600-138323-18
ARTESIA-INLET-10132016	600-138323-20
ARTESIA-MIDDLE-10132016	600-138323-21
ARTESIA-EFFLUENT-10132016	600-138323-22
ARTESIA-MD18-10122016	600-138323-23
ARTESIA-MD30-10122016	600-138323-24

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW18-10122016 Lab Sample ID: 600-138323-6

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 13:00

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0177	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW21-10122016 Lab Sample ID: 600-138323-8

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 14:00

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW31-10122016 Lab Sample ID: 600-138323-9

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 14:15

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW22-10122016 Lab Sample ID: 600-138323-10

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 14:30

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0434	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW25-10122016 Lab Sample ID: 600-138323-11

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 14:50

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.156	0.0500	0.0116	mg/L			1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW26-10122016 Lab Sample ID: 600-138323-12

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 15:00

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0353	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW28-10122016 Lab Sample ID: 600-138323-13

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 15:30

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW34-10122016 Lab Sample ID: 600-138323-14

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 16:00

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW29-10122016 Lab Sample ID: 600-138323-15

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 16:30

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW30-10122016 Lab Sample ID: 600-138323-16

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 17:00

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW32-10132016 Lab Sample ID: 600-138323-18

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/13/2016 09:00

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-INLET-10132016 Lab Sample ID: 600-138323-20

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/13/2016 08:15

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0261	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MIDDLE-10132016 Lab Sample ID: 600-138323-21

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/13/2016 08:20

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0245	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-EFFLUENT-10132016 Lab Sample ID: 600-138323-22

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/13/2016 08:25

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0312	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MD18-10122016 Lab Sample ID: 600-138323-23

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 13:00

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0146	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MD30-10122016 Lab Sample ID: 600-138323-24

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG ID.:

Matrix: Water Date Sampled: 10/12/2016 17:00

Reporting Basis: WET Date Received: 10/14/2016 10:07

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICV Source: aICV_esi250_00001 Concentration Units: ug/L

CCV Source: TS_MS250_00035

Analyte	ICV 560-133008/9 10/20/2016 14:11				CCV 560-133008/13 10/20/2016 17:22				CCV 560-133008/25 10/20/2016 18:37			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese, Dissolved	2358		2500	94	2472		2500	99	2465		2500	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICV Source: aICV_esi250_00001 Concentration Units: ug/L

CCV Source: TS_MS250_00035

Analyte	CCV 560-133008/37 10/20/2016 20:00				CCV 560-133008/49 10/20/2016 21:22				CCV 560-133008/62 10/20/2016 22:44			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese, Dissolved	2430		2500	97	2408		2500	96	2419		2500	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 560-133008/12 10/20/2016 14:44		CCB 560-133008/14 10/20/2016 17:27		CCB 560-133008/26 10/20/2016 18:47		CCB 560-133008/38 10/20/2016 20:11	
		Found	C	Found	C	Found	C	Found	C
Manganese, Dissolved	50.0	11.6	U	11.6	U	11.6	U	11.6	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 560-133008/50 10/20/2016 21:27		CCB 560-133008/51 10/20/2016 21:32		CCB 560-133008/63 10/20/2016 22:49			
		Found	C	Found	C	Found	C	Found	C
Manganese, Dissolved	50.0	11.6	U	11.6	U	11.6	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 560-132922/1-A

Instrument Code: Micpms Batch No.: 133008

CAS No.	Analyte	Concentration	C	Q	Method
7439-96-5	Manganese, Dissolved	0.0116	U		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 560-132923/1-A

Instrument Code: Micpms Batch No.: 133008

CAS No.	Analyte	Concentration	C	Q	Method
7439-96-5	Manganese, Dissolved	0.0116	U		6020

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Lab Sample ID: ICSA 560-133008/10 Instrument ID: Micpms

Lab File ID: 015SMPL.D ICS Source: INT-A/2_00001

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Manganese, Dissolved		**5.99**	
Aluminum	*125000*	*148600*	*119*
Arsenic		*-0.0383*	
Beryllium		*0.0069*	
Boron		*-1.21*	
Calcium	*125000*	*128800*	*103*
Chromium		*0.442*	
Cobalt		*0.210*	
Copper		*1.37*	
Iron	*50000*	*46640*	*93*
Lead		*1.19*	
Lithium		*0.650*	
Magnesium	*125000*	*147200*	*118*
Nickel		*1.42*	
Phosphorus		*3.93*	
Potassium		*38.8*	
Selenium		*-0.927*	
Silicon		*0.0000*	
Sodium		*90.8*	
Thallium		*-1.61*	
Titanium		*1.95*	
Uranium		*0.0217*	
Vanadium		*0.177*	
Zinc		*21.4*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Lab Sample ID: ICSAB 560-133008/11 Instrument ID: Micpms

Lab File ID: 016SMPL.D ICS Source: INT-AB/2_00001

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Manganese, Dissolved	**250**	**247**	**99**
Aluminum	*125000*	*152900*	*122*
Arsenic		*0.712*	
Beryllium	*250*	*256*	*102*
Boron		*-1.99*	
Calcium	*125000*	*132700*	*106*
Chromium	*250*	*251*	*100*
Cobalt	*250*	*241*	*96*
Copper	*250*	*246*	*98*
Iron	*50000*	*48430*	*97*
Lead	*500*	*519*	*104*
Lithium		*-0.473*	
Magnesium	*125000*	*151900*	*122*
Nickel	*500*	*483*	*97*
Phosphorus		*-8.59*	
Potassium		*38.4*	
Selenium		*-0.525*	
Silicon		*0.0000*	
Sodium		*90.2*	
Thallium		*-2.63*	
Titanium		*1.51*	
Uranium		*0.0186*	
Vanadium	*250*	*255*	*102*
Zinc	*500*	*501*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: ARTESIA-MW28-10122016 MS Lab ID: 600-138323-13 MS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Manganese, Dissolved	2.234		0.0116	U	2.50	89	80-120		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: ARTESIA-MW34-10122016 MS Lab ID: 600-138323-14 MS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Manganese, Dissolved	2.182		0.0116	U	2.50	87	80-120		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: ARTESIA-MW28-10122016 MSD Lab ID: 600-138323-13 MSD

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Manganese, Dissolved	2.350		2.50	94	80-120	5	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: ARTESIA-MW34-10122016 MSD Lab ID: 600-138323-14 MSD

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Manganese, Dissolved	2.418		2.50	97	80-120	10	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 560-132922/2-A

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

Sample Matrix: Water LCS Source: ESI-spkA_00016

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Manganese, Dissolved	2.50	2.313		93	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 560-132923/2-A

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

Sample Matrix: Water LCS Source: ESI-spkA_00016

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Manganese, Dissolved	2.50	2.282		91	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 600-138323-13

SDG No:

Lab Name: TestAmerica Corpus Christi Job No: 600-138323-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Manganese, Dissolved	0.0116	U	0.1040	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 600-138323-14

SDG No:

Lab Name: TestAmerica Corpus Christi Job No: 600-138323-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Manganese, Dissolved	0.0116	U	0.1099	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Corpus Christi Job Number: 600-138323-1

SDG Number:

Matrix: Water Instrument ID: Micpms

Method: 6020 MDL Date: 05/02/2011 10:33

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Manganese, Dissolved	55	50	11.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Corpus Christi Job Number: 600-138323-1

SDG Number:

Matrix: Water Instrument ID: Micpms

Method: 6020 XMDL Date: 05/02/2011 10:34

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Manganese, Dissolved	55	50	11.6

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Corpus Christi Job No: 600-138323-1

SDG No.:

Instrument ID: Micpms Date: 05/12/2011 15:16

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Manganese, Dissolved	0.15	50000	6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 560-132922/1-A	10/19/2016 10:30	132922		50	50
LCS 560-132922/2-A	10/19/2016 10:30	132922		50	50
600-138323-13	10/19/2016 10:30	132922		50	50
600-138323-13 MS	10/19/2016 10:30	132922		50	50
600-138323-13 MSD	10/19/2016 10:30	132922		50	50
600-138323-6	10/19/2016 10:30	132922		50	50
600-138323-8	10/19/2016 10:30	132922		50	50
600-138323-9	10/19/2016 10:30	132922		50	50
600-138323-10	10/19/2016 10:30	132922		50	50
600-138323-11	10/19/2016 10:30	132922		50	50
600-138323-12	10/19/2016 10:30	132922		50	50
600-138323-15	10/19/2016 10:30	132922		50	50
600-138323-16	10/19/2016 10:30	132922		50	50
600-138323-18	10/19/2016 10:30	132922		50	50
600-138323-20	10/19/2016 10:30	132922		50	50
600-138323-21	10/19/2016 10:30	132922		50	50
600-138323-22	10/19/2016 10:30	132922		50	50
600-138323-23	10/19/2016 10:30	132922		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 560-132923/1-A	10/19/2016 10:40	132923		50	50
LCS 560-132923/2-A	10/19/2016 10:40	132923		50	50
600-138323-14	10/19/2016 10:40	132923		50	50
600-138323-14 MS	10/19/2016 10:40	132923		50	50
600-138323-14 MSD	10/19/2016 10:40	132923		50	50
600-138323-24	10/19/2016 10:40	132923		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Instrument ID: Micpms Analysis Method: 6020

Start Date: 10/20/2016 13:24 End Date: 10/21/2016 00:51

Lab Sample Id	D/F	Type	Time	Analytes
				Mn
IC 560-133008/1	1		13:24	X
IC 560-133008/2	1		13:30	X
IC 560-133008/3	1		13:35	X
IC 560-133008/4	1		13:40	X
IC 560-133008/5	1		13:45	X
CALIBSTD 560-133008/6 IC	1		13:55	X
ICV 560-133008/7	1		14:00	
ZZZZZZ			14:06	
ICV 560-133008/9	1		14:11	X
ICSA 560-133008/10	1		14:27	X
ICSAB 560-133008/11	1		14:32	X
ICB 560-133008/12	1		14:44	X
CCV 560-133008/13	1		17:22	X
CCB 560-133008/14	1		17:27	X
ZZZZZZ			17:32	
ZZZZZZ			17:37	
ZZZZZZ			17:42	
MB 560-132922/1-A	1	T	17:48	X
LCS 560-132922/2-A	1	T	17:53	X
ZZZZZZ			17:58	
600-138323-13	1	D	18:04	X
600-138323-13 MS	1	D	18:09	X
600-138323-13 MSD	1	D	18:15	X
600-138323-13 SD	5	D	18:21	X
CCV 560-133008/25	1		18:37	X
CCB 560-133008/26	1		18:47	X
600-138323-6	1	D	18:52	X
600-138323-8	1	D	18:58	X
600-138323-9	1	D	19:04	X
600-138323-10	1	D	19:10	X
600-138323-11	1	D	19:15	X
600-138323-12	1	D	19:21	X
600-138323-15	1	D	19:27	X
600-138323-16	1	D	19:33	X
600-138323-18	1	D	19:38	X
600-138323-20	1	D	19:44	X
CCV 560-133008/37	1		20:00	X
CCB 560-133008/38	1		20:11	X
600-138323-21	1	D	20:16	X
600-138323-22	1	D	20:22	X
600-138323-23	1	D	20:27	X
MB 560-132923/1-A	1	T	20:33	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Instrument ID: Micpms Analysis Method: 6020

Start Date: 10/20/2016 13:24 End Date: 10/21/2016 00:51

Lab Sample Id	D/F	Type	Time	Analytes																								
				Mn																								
LCS 560-132923/2-A	1	T	20:38	X																								
ZZZZZZ			20:43																									
600-138323-14	1	D	20:48	X																								
600-138323-14 MS	1	D	20:54	X																								
600-138323-14 MSD	1	D	21:00	X																								
ZZZZZZ			21:06																									
CCV 560-133008/49	1		21:22	X																								
CCB 560-133008/50	1		21:27	X																								
CCB 560-133008/51	1		21:32	X																								
ZZZZZZ			21:37																									
600-138323-14 SD	5	D	21:43	X																								
600-138323-24	1	D	21:49	X																								
ZZZZZZ			21:54																									
ZZZZZZ			22:00																									
ZZZZZZ			22:06																									
ZZZZZZ			22:12																									
ZZZZZZ			22:18																									
ZZZZZZ			22:23																									
ZZZZZZ			22:28																									
CCV 560-133008/62	1		22:44	X																								
CCB 560-133008/63	1		22:49	X																								
CCB 560-133008/64			22:54																									
ZZZZZZ			22:59																									
ZZZZZZ			23:05																									
ZZZZZZ			23:10																									
ZZZZZZ			23:15																									
ZZZZZZ			23:21																									
ZZZZZZ			23:26																									
ZZZZZZ			23:31																									
ZZZZZZ			23:37																									
ZZZZZZ			23:42																									
ZZZZZZ			23:48																									
CCV 560-133008/75			00:03																									
ZZZZZZ			00:08																									
CCB 560-133008/77			00:13																									
ZZZZZZ			00:19																									
ZZZZZZ			00:24																									
CCV 560-133008/80			00:41																									
ZZZZZZ			00:46																									
CCB 560-133008/82			00:51																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Instrument ID: Micpms Analysis Method: 6020

Start Date: 10/20/2016 13:24 End Date: 10/21/2016 00:51

Lab Sample Id	D/F	Type	Time	Analytes																								
				Mn																								

Prep Types:
D = Dissolved
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 10/20/2016 End Date: 10/20/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element Ge/1	Q
IC 560-133008/1	13:24	99		99		97		100		99	
IC 560-133008/2	13:30	100		99		99		100		101	
IC 560-133008/3	13:35	98		100		98		99		105	
IC 560-133008/4	13:40	94		95		96		97		103	
IC 560-133008/5	13:45	92		94		95		95		99	
CALIBSTD 560-133008	13:55	100		100		100		100		100	
ICV 560-133008/7	14:00	98		98		100		98		99	
ICV 560-133008/9	14:11	94		96		99		96		102	
ICSA 560-133008/10	14:27	93		92		96		93		94	
ICSAB 560-133008/11	14:32	91		93		96		93		96	
ICB 560-133008/12	14:44	97		101		102		98		102	
CCV 560-133008/13	17:22	88		92		94		94		103	
CCB 560-133008/14	17:27	94		95		98		97		103	
MB 560-132922/1-A	17:48	97		99		101		100		108	
LCS 560-132922/2-A	17:53	90		93		96		94		102	
600-138323-13	18:04	87		92		94		94		105	
600-138323-13 MS	18:09	85		91		94		92		104	
600-138323-13 MSD	18:15	85		92		93		93		109	
600-138323-13 SD	18:21	92		96		100		98		116	
CCV 560-133008/25	18:37	92		95		97		97		110	
CCB 560-133008/26	18:47	96		98		99		100		106	
600-138323-6	18:52	88		94		96		96		105	
600-138323-8	18:58	88		95		98		97		107	
600-138323-9	19:04	82		91		93		90		106	
600-138323-10	19:10	84		89		91		92		99	
600-138323-11	19:15	84		93		93		93		106	
600-138323-12	19:21	88		97		97		97		106	
600-138323-15	19:27	83		91		93		91		102	
600-138323-16	19:33	80		91		92		88		101	
600-138323-18	19:38	94		106		108		105		113	
600-138323-20	19:44	94		105		107		104			
CCV 560-133008/37	20:00	104		111		113		112			
CCB 560-133008/38	20:11	108		112		114		112			
600-138323-21	20:16	94		104		105		103		117	
600-138323-22	20:22	92		104		104		102		120	
600-138323-23	20:27	88		105		104		99			
MB 560-132923/1-A	20:33	107		108		110		111		115	
LCS 560-132923/2-A	20:38	99		105		107		105		111	
600-138323-14	20:48	90		101		103		101		113	
600-138323-14 MS	20:54	85		96		99		96		110	
600-138323-14 MSD	21:00	86		101		103		99		110	
CCV 560-133008/49	21:22	97		104		107		106		118	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 10/20/2016 End Date: 10/20/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element Ge/1	Q
CCB 560-133008/50	21:27	101		106		109		108		110	
CCB 560-133008/51	21:32	99		106		107		105		111	
600-138323-14 SD	21:43	95		103		104		103		112	
600-138323-24	21:49	86		96		95		96		111	
CCV 560-133008/62	22:44	92		102		105		105		118	
CCB 560-133008/63	22:49	97		101		110		107		112	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 10/20/2016 End Date: 10/20/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/2	Q	Element Ge/3	Q	Element Y-89/1	Q	Element Y-89/2	Q	Element Y-89/3	Q
IC 560-133008/1	13:24	99		98		99		98		120	
IC 560-133008/2	13:30	101		99		99		99		109	
IC 560-133008/3	13:35	105		102		99		99		98	
IC 560-133008/4	13:40	101		99		96		95		85	
IC 560-133008/5	13:45	102		98		93		94		84	
CALIBSTD 560-133008	13:55	100		100		100		100		100	
ICV 560-133008/7	14:00	99		99		97		97		87	
ICV 560-133008/9	14:11	103		103		94		95		85	
ICSA 560-133008/10	14:27	96		96		92		94		83	
ICSAB 560-133008/11	14:32	98		97		92		94		83	
ICB 560-133008/12	14:44	100		101		101		100		108	
CCV 560-133008/13	17:22	102		103		93		94		84	
CCB 560-133008/14	17:27	99		99		96		98		97	
MB 560-132922/1-A	17:48	101		101		100		101		101	
LCS 560-132922/2-A	17:53	100		100		94		95		86	
600-138323-13	18:04	102		101		91		92		83	
600-138323-13 MS	18:09	101		99		90		92		82	
600-138323-13 MSD	18:15	100		101		91		91		82	
600-138323-13 SD	18:21	106		106		96		98		97	
CCV 560-133008/25	18:37	106		107		95		97		87	
CCB 560-133008/26	18:47	101		102		100		99		89	
600-138323-6	18:52	101		103		93		92		84	
600-138323-8	18:58	103		102		93		94		84	
600-138323-9	19:04	99		97		89		89		79	
600-138323-10	19:10	94		98		87		87		81	
600-138323-11	19:15	99		99		89		89		81	
600-138323-12	19:21	102		102		94		93		84	
600-138323-15	19:27	96		96		88		88		80	
600-138323-16	19:33	96		94		88		87		77	
600-138323-18	19:38	111		109		100		101			
600-138323-20	19:44	113		110		101		101		101	
CCV 560-133008/37	20:00	119		119		107		107			
CCB 560-133008/38	20:11	115		113		108		108			
600-138323-21	20:16	109		108		100		99		89	
600-138323-22	20:22	109		107		100		97		98	
600-138323-23	20:27	110		104		99		98		85	
MB 560-132923/1-A	20:33	109		109		104		104			
LCS 560-132923/2-A	20:38	109		108		100		101		120	
600-138323-14	20:48	106		105		96		97		86	
600-138323-14 MS	20:54	104		101		91		93		82	
600-138323-14 MSD	21:00	106		101		96		96		84	
CCV 560-133008/49	21:22	113		114		101		102			

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 10/20/2016 End Date: 10/20/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/2	Q	Element Ge/3	Q	Element Y-89/1	Q	Element Y-89/2	Q	Element Y-89/3	Q
CCB 560-133008/50	21:27	108		108		103		103			
CCB 560-133008/51	21:32	107		108		103		102			
600-138323-14 SD	21:43	108		108		99		99		100	
600-138323-24	21:49	104		101		92		91		83	
CCV 560-133008/62	22:44	114		114		99		101		115	
CCB 560-133008/63	22:49	112		109		100		107			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 10/20/2016 End Date: 10/20/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In/1	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q	Element Ho	Q
IC 560-133008/1	13:24	98		99		99		100		99	
IC 560-133008/2	13:30	99		100		99		100		97	
IC 560-133008/3	13:35	99		99		98		99		97	
IC 560-133008/4	13:40	95		96		95		96		95	
IC 560-133008/5	13:45	92		94		93		96		96	
CALIBSTD 560-133008	13:55	100		100		100		100		100	
ICV 560-133008/7	14:00	94		94		83		96		97	
ICV 560-133008/9	14:11	90		91		80		92		94	
ICSA 560-133008/10	14:27	87		88				91		92	
ICSAB 560-133008/11	14:32	87		89				90		91	
ICB 560-133008/12	14:44	97		96		84		95		95	
CCV 560-133008/13	17:22	90		91		81		89		92	
CCB 560-133008/14	17:27	93		95		84		93		93	
MB 560-132922/1-A	17:48	98		98		87		96		96	
LCS 560-132922/2-A	17:53	91		91		82		91		91	
600-138323-13	18:04	86		87		78		88		88	
600-138323-13 MS	18:09	85		86		76		86		86	
600-138323-13 MSD	18:15	85		84		76		86		87	
600-138323-13 SD	18:21	91		92		83		91		92	
CCV 560-133008/25	18:37	92		92		83		91		92	
CCB 560-133008/26	18:47	96		96		85		93		93	
600-138323-6	18:52	86		86		78		87		87	
600-138323-8	18:58	87		88		78		86		87	
600-138323-9	19:04	83		83		73		81		80	
600-138323-10	19:10	79		80		74		82		83	
600-138323-11	19:15	83		82		74		82		83	
600-138323-12	19:21	86		86		78		85		85	
600-138323-15	19:27	81		81		73		80		81	
600-138323-16	19:33	81		80		70		77		77	
600-138323-18	19:38	93		92		83		89		90	
600-138323-20	19:44	93		92		82		89		89	
CCV 560-133008/37	20:00	100		99		101		93		94	
CCB 560-133008/38	20:11	102		101		118		96		96	
600-138323-21	20:16	92		90		80		87		88	
600-138323-22	20:22	91		89		80		87		87	
600-138323-23	20:27	90		88		78		84		84	
MB 560-132923/1-A	20:33	97		97		101		89		90	
LCS 560-132923/2-A	20:38	92		93		84		88		88	
600-138323-14	20:48	88		88		79		84		84	
600-138323-14 MS	20:54	83		84		74		81		81	
600-138323-14 MSD	21:00	87		86		75		82		81	
CCV 560-133008/49	21:22	94		93		85		89		90	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 10/20/2016 End Date: 10/20/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In/1	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q	Element Ho	Q
CCB 560-133008/50	21:27	97		96		88		91		89	
CCB 560-133008/51	21:32	96		95		86		89		88	
600-138323-14 SD	21:43	91		91		82		87		87	
600-138323-24	21:49	84		83		75		80		80	
CCV 560-133008/62	22:44	92		94		85		90		90	
CCB 560-133008/63	22:49	93		100		88		92		93	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 10/20/2016 End Date: 10/20/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
IC 560-133008/1	13:24	99									
IC 560-133008/2	13:30	99									
IC 560-133008/3	13:35	98									
IC 560-133008/4	13:40	95									
IC 560-133008/5	13:45	92									
CALIBSTD 560-133008	13:55	100									
ICV 560-133008/7	14:00	98									
ICV 560-133008/9	14:11	92									
ICSA 560-133008/10	14:27	90									
ICSAB 560-133008/11	14:32	89									
ICB 560-133008/12	14:44	97									
CCV 560-133008/13	17:22	91									
CCB 560-133008/14	17:27	97									
MB 560-132922/1-A	17:48	100									
LCS 560-132922/2-A	17:53	91									
600-138323-13	18:04	85									
600-138323-13 MS	18:09	82									
600-138323-13 MSD	18:15	82									
600-138323-13 SD	18:21	90									
CCV 560-133008/25	18:37	92									
CCB 560-133008/26	18:47	96									
600-138323-6	18:52	84									
600-138323-8	18:58	84									
600-138323-9	19:04	78									
600-138323-10	19:10	78									
600-138323-11	19:15	78									
600-138323-12	19:21	81									
600-138323-15	19:27	76									
600-138323-16	19:33	72									
600-138323-18	19:38	85									
600-138323-20	19:44	84									
CCV 560-133008/37	20:00	92									
CCB 560-133008/38	20:11	96									
600-138323-21	20:16	83									
600-138323-22	20:22	82									
600-138323-23	20:27	78									
MB 560-132923/1-A	20:33	90									
LCS 560-132923/2-A	20:38	85									
600-138323-14	20:48	79									
600-138323-14 MS	20:54	75									
600-138323-14 MSD	21:00	75									
CCV 560-133008/49	21:22	86									

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

ICP-MS Instrument ID: Micpms Start Date: 10/20/2016 End Date: 10/20/2016

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
CCB 560-133008/50	21:27	89									
CCB 560-133008/51	21:32	88									
600-138323-14 SD	21:43	84									
600-138323-24	21:49	75									
CCV 560-133008/62	22:44	86									
CCB 560-133008/63	22:49	90									

METALS BATCH WORKSHEET

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Batch Number: 132922 Batch Start Date: 10/19/16 10:30 Batch Analyst: Becka, Heidi H

Batch Method: 3010A Batch End Date: 10/19/16 13:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ESI-spkA 00016	ESI-spkB 00012	
MB 560-132922/1		3010A, 6020		<2	50 mL	50 mL			
LCS 560-132922/2		3010A, 6020		<2	50 mL	50 mL	0.5 mL	0.5 mL	
600-138323-A-13	ARTESIA-MW28-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-13 MS	ARTESIA-MW28-101 22016	3010A, 6020	D	<2	50 mL	50 mL	0.5 mL	0.5 mL	
600-138323-A-13 MSD	ARTESIA-MW28-101 22016	3010A, 6020	D	<2	50 mL	50 mL	0.5 mL	0.5 mL	
600-138323-A-6	ARTESIA-MW18-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-8	ARTESIA-MW21-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-9	ARTESIA-MW31-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-10	ARTESIA-MW22-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-11	ARTESIA-MW25-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-12	ARTESIA-MW26-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-15	ARTESIA-MW29-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-16	ARTESIA-MW30-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-18	ARTESIA-MW32-101 32016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-20	ARTESIA-INLET-10 132016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-21	ARTESIA-MIDDLE-1 0132016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-22	ARTESIA-EFFLUENT -10132016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-23	ARTESIA-MD18-101 22016	3010A, 6020	D	<2	50 mL	50 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Batch Number: 132922 Batch Start Date: 10/19/16 10:30 Batch Analyst: Becka, Heidi H

Batch Method: 3010A Batch End Date: 10/19/16 13:30

Batch Notes	
First End time	1330
Lot # of hydrochloric acid	1432338
Lot # of Nitric Acid	1424485
Hot Block ID	Digest #2
Oven, Bath or Block Temperature 1	95 Degrees C
Oven, Bath or Block Temperature 2	95 Degrees C
Pipette ID	172
First Start time	1030
Thermometer ID	T-215
Digestion Tube/Cup ID	1512329
Uncorrected Temperature	95 Degrees C
Uncorrected Temperature 2	95 Degrees C

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Corpus Christi Job No.: 600-138323-1

SDG No.:

Batch Number: 132923 Batch Start Date: 10/19/16 10:40 Batch Analyst: Becka, Heidi H

Batch Method: 3010A Batch End Date: 10/19/16 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ESI-spkA 00016	ESI-spkB 00012	
MB 560-132923/1		3010A, 6020		<2	50 mL	50 mL			
LCS 560-132923/2		3010A, 6020		<2	50 mL	50 mL	0.5 mL	0.5 mL	
600-138323-A-14	ARTESIA-MW34-101 22016	3010A, 6020	D	<2	50 mL	50 mL			
600-138323-A-14 MS	ARTESIA-MW34-101 22016	3010A, 6020	D	<2	50 mL	50 mL	0.5 mL	0.5 mL	
600-138323-A-14 MSD	ARTESIA-MW34-101 22016	3010A, 6020	D	<2	50 mL	50 mL	0.5 mL	0.5 mL	
600-138323-A-24	ARTESIA-MD30-101 22016	3010A, 6020	D	<2	50 mL	50 mL			

Batch Notes	
First End time	1400
Lot # of hydrochloric acid	1432338
Lot # of Nitric Acid	1424485
Hot Block ID	Digest #2
Oven, Bath or Block Temperature 1	95 Degrees C
Oven, Bath or Block Temperature 2	95 Degrees C
Pipette ID	172
First Start time	1040
Thermometer ID	T-215
Digestion Tube/Cup ID	1512329
Uncorrected Temperature	95 Degrees C
Uncorrected Temperature 2	95 Degrees C

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Houston
6310 [illegible]way Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica

Client Information	Sampler: Luke Hill	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No: 600-31448-10612.1
Client Contact: Jeffrey Minchak	Phone: 205-240-3235	E-Mail: cathy.upton@testamericainc.com		Page: Page ____ of ____
Company: CH2M Hill, Inc.				Job #

Address: 4041 Jefferson Plaza NE Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Albuquerque	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: NM, 87109			
Phone: 281-721-8546(Tel)	PO #: 10381-7-108933		
Email: Jeffrey.Minchak@ch2m.com	WO #:		Other:
Project Name: Dowell - Artesia Groundwater	Project #: 60004334		
Site: Dowell - Artesia Groundwater	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - (MOD) Custom List	6020 - Manganese, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	D		
ARTESIA-MW15-10122016	10/12/16	1030	G	Water	N	N	X		3	
ARTESIA-MW12-10122016	10/12/16	1100	G	Water	N	N	X		3	
ARTESIA-MW17C-10122016	10/12/16	1120	G	Water	N	N	X		3	
✓ ARTESIA-MW8-10122016	10/12/16	1200	G	Water	N	N	X		3	
✓ ARTESIA-MW11-10122016	10/12/16	1240	G	Water	N	N	X		3	
✓ ARTESIA-MD11-10122016	10/12/16	1240	G	Water	N	N	X		3	
✓ ARTESIA-MW18-10122016	10/12/16	1300	G	Water	Y	N	X	X	4	
✓ ARTESIA-MD18-10122016	10/12/16	1300	G	Water	Y	N	X	X	4	
✓ ARTESIA-MW20-10122016	10/12/16	1330	G	Water	N	N	X		3	
✓ ARTESIA-MW21-10122016	10/12/16	1400	G	Water	Y	N	X	X	4	
✓ ARTESIA-MW31-10122016	10/12/16	1415	G	Water	Y	N	X	X	4	

600-136323 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: L. Hill	Date/Time: 10/13/16 1700	Company: CH2M	Received by:	Date/Time: 10-14-16 1207	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

10/30/2016

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica

Client Information	Sampler: Luke Hill	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No: 600-31448-10612.1
Client Contact: Jeffrey Minchak	Phone: 205-240-3235	E-Mail: cathy.upton@testamericainc.com		Page: Page ____ of ____
Company: CH2M Hill, Inc				Job #:
Address: 4041 Jefferson Plaza NE Suite 200	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Albuquerque	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: NM, 87109				
Phone: 281-721-8546(Tel)	PO #: 10381-7-108933			
Email: Jeffrey.Minchak@ch2m.com	WO #:			Other:
Project Name: Dowell - Artesia Groundwater	Project #: 60004334			
Site: Dowell - Artesia Groundwater	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - (MOD) Custom List	6020 - Manganese, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code				A	D		
ARTESIA-MW22-10122016	10/12/16	1430	G	Water	Y	N	X	X	4	
ARTESIA-MW25-10122016	10/12/16	1450	G	Water	Y	N	X	X	4	
ARTESIA-MW26-10122016	10/12/16	1500	G	Water	Y	N	X	X	4	
✓ ARTESIA-MW28-10122016	10/12/16	1530	G	Water	Y	N	X	X	4	
✓ ARTESIA-MW28-10122016-MS	10/12/16	1530	G	Water	Y	Y	X	X	4	
✓ ARTESIA-MW28-10122016-MSD	10/12/16	1530	G	Water	Y	Y	X	X	4	
✓ ARTESIA-MW34-10122016	10/12/16	1600	G	Water	Y	N	X	X	4	
✓ ARTESIA-MW34-10122016-MS	10/12/16	1600	G	Water	Y	Y	X	X	4	
✓ ARTESIA-MW34-10122016-MSD	10/12/16	1600	G	Water	Y	Y	X	X	4	
✓ ARTESIA-MW29-10122016	10/12/16	1630	G	Water	Y	N	X	X	4	
✓ ARTESIA-MW30-10122016	10/12/16	1700	G	Water	Y	N	X	X	4	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
L.Hill LMill	10/13/16 1700	CH2M		10/14/16 1007	TA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

10/30/2016

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica

Client Information	Sampler: Luke Hill	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No: 600-31448-10612.1
Client Contact: Jeffrey Minchak	Phone: 205-240-3235	E-Mail: cathy.upton@testamericainc.com		Page: Page ____ of ____
Company: CH2M Hill, Inc.				Job #:
Address: 4041 Jefferson Plaza NE Suite 200	Due Date Requested: ✓			
City: Albuquerque	TAT Requested (days): Standard			
State, Zip: NM, 87109				
Phone: 281-721-8546(Tel)	PO #: 10381-7-108933			
Email: Jeffrey.Minchak@ch2m.com	WO #:			
Project Name: Dowell - Artesia Groundwater	Project #: 60004334			
Site: Dowell - Artesia Groundwater	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL - (MOD) Custom List A	6020 - Manganese, Dissolved D	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
ARTESIA-MD30-10122016	10/12/16	1700	G	Water	Y	N	X	X	4	
ARTESIA--TB01-10122016	10/12/16	0800	G	Water	N	N	X		2	Trip Blank
ARTESIA-MW32-10132016	10/13/16	0900	G	Water	Y	N	X	X	4	
ARTESIA-MW33-10132016	10/13/16	0945	G	Water	N	N	X			
ARTESIA-COMBINEDINLET-10132016	10/13/16	0815	G	Water	Y	N	X	X		
ARTESIA-MIDGAC-10132016	10/13/16	0820	G	Water	Y	N	X	X		
ARTESIA-COMBINEDOUTLET-10132016	10/13/16	0825	G	Water	Y	N	X	X		
			G	Water						
			G	Water						
			G	Water						
			G	Water						

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
L. Hill	10/13/16 1700	CH2M		10-14-16 1057	
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

10/30/2016

Loc: 600
138323

TestAmerica Houston

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample R :klist

'16 OCT 14 10:07

Date/Time Received: _____

JOB NUMBER: _____ CLIENT: CHZM

UNPACKED BY: _____ CARRIER/DRIVER: FE

Custody Seal Present: ☐ YES ☐ NO Number of Coolers Received: 2

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
RW	Y / N	Y / N	4.7	849	+.3	5.0
RW	Y / N	Y / N	3.5	1	1	3.8
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YES

Base samples are>pH 12: ☐ YES ☐ NO Acid preserved are<pH 2: ☒ YES ☐ NO

pH paper Lot # NC089794

VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☒	☐

COMMENTS:

7783 8066 4173
7783 8066 4182

HS-SA-WI-013 Rev. 3; 07/01/2014

Upton, Cathy

From: Aleeca.Forsberg@CH2M.com
Sent: Monday, October 17, 2016 5:12 PM
To: Upton, Cathy
Cc: Jeffrey.Minchak@CH2M.com; John.Ynfante@CH2M.com; Luke.Hill@ch2m.com; Rick.Dobbins@CH2M.com
Subject: RE: TestAmerica Sample Login Confirmation files from 600-138323 Dowell - Artesia Groundwater

Follow Up Flag: Follow up
Flag Status: Flagged

Hi,

Please change the IDs of the following samples:

ARTESIA-COMBINEDINLET-10132016 to **ARTESIA-INLET-10132016**

ARTESIA-MIDGAC-10132016 to **ARTESIA-MIDDLE-10132016**

ARTESIA-COMBINEDOUTLET-10132016 to **ARTESIA-EFFLUENT-10132016**

Thanks,

Aleeca
Hydrogeologist
D 505.855.5239
M 505.918.1800

ch2m:
3721 Rutledge Rd NE Suite B-1
Albuquerque, NM 87109

From: Upton, Cathy [mailto:cathy.upton@testamericainc.com]
Sent: Monday, October 17, 2016 4:05 PM
To: Forsberg, Aleeca/ABQ <Aleeca.Forsberg@CH2M.com>; Minchak, Jeff/ABQ <Jeffrey.Minchak@CH2M.com>; Ynfante, John/HOU <John.Ynfante@CH2M.com>; Hill, Luke/ABQ <Luke.Hill@ch2m.com>; Dobbins, Rick/GNV <Rick.Dobbins@CH2M.com>
Subject: TestAmerica Sample Login Confirmation files from 600-138323 Dowell - Artesia Groundwater [EXTERNAL]

Hello,

Attached, please find the Sample Confirmation files for job 600-138323; Dowell - Artesia Groundwater

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

CATHY L UPTON
Project Manager I

TestAmerica Houston
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 713.690.4444
www.testamericainc.com

Reference: [327306]
Attachments: 2

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-138323-1

Login Number: 138323
List Number: 1
Creator: Crafton, Tommie S

List Source: TestAmerica Houston

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	5.0 3.8
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?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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.	True	
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	Check done at department level as required.

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-138323-1

Login Number: 138323
List Number: 2
Creator: Escalona-Garcia, Jose A

List Source: TestAmerica Corpus Christi
List Creation: 10/19/16 09:59 AM

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?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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.	True	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	