



March 18, 2011  
Project 116065

City of Colleyville  
100 Main Street  
Colleyville, TX 76034

Attention: Mr. Ron Ruthven

**Subject: Baseline Groundwater Quality Evaluation  
Trinity Pad Site – Baseline Sampling Event  
Colleyville, Tarrant County, Texas**

Dear Mr. Ruthven:

Please find the attached Baseline Groundwater Quality Evaluation prepared on behalf of the City of Colleyville. We appreciate the opportunity to provide these services to you. Should you have any questions or comments regarding this report, please feel free to contact the undersigned.

Respectfully submitted,

**KLEINFELDER CENTRAL, INC.**  
Texas Registered Engineering Firm F-5592

A handwritten signature in blue ink, appearing to read "Kenneth S. Tramm", is written over a faint, larger version of the signature.

Kenneth S. Tramm, PhD, PG, CHMM  
Senior Program Manager  
972.868.5946

Attachment



# **BASELINE GROUNDWATER QUALITY REPORT**

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**City of Colleyville, Texas**  
**Multiple Locations**  
**Colleyville, Tarrant County, Texas**

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Project 116065  
March 18, 2011

# BASELINE GROUNDWATER QUALITY REPORT

## Multiple Locations

Colleyville, Tarrant County, Texas

Project 116065  
March 18, 2010

Prepared by:



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Mike B. McCraw  
Project Geologist



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**BASELINE GROUNDWATER QUALITY REPORT  
MULTIPLE LOCATIONS  
COLLEYVILLE, TARRANT COUNTY, TEXAS**

**1 INTRODUCTION**

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This report provides a summary of baseline groundwater quality monitoring activities performed by Kleinfelder Central, Inc. (Kleinfelder) on behalf of the City of Colleyville at multiple well sites located throughout the city. As part of the ordinance requirements in Colleyville all documented water wells within 2,000 feet of permitted oil/gas wells are requested to be sampled.

The purpose of this study is to provide well owners near the planned exploration and production (E&P) activities with a baseline of selected indicator compounds that may be associated with E&P activities should issues arise following completion, hydraulic fracturing, or other subgrade activities. The resulting data should be maintained to allow future comparisons to occur as needed. Further details of the wells and sampling are provided below.

**1.1 WELL LOCATION DESCRIPTIONS**

Kleinfelder was provided with an initial well listing and ownership information at the project outset. We then communicated with all available well owners and arranged for individual well site visits to confirm the location and functionality of each well. The following is a summary of locations and general characteristics of water wells sampled during this evaluation. Data and characteristics of the applicable wells were obtained from the Texas Water Development Board (TWDB) Water Information Integration & Dissemination (WIID) online database. The Wells were given a unique identifier for this study to allow ease of reference. State Well ID's are also provided for reference below within parentheses were used during the monitoring activities/laboratory analysis and are not indicative of TWDB WIID Well ID identifications.

**Well A (108393)** – Well A is located at 7208 Pleasant Run Rd. in Colleyville, Texas. The well is owned by Mr. Bryant Thomason and was installed and completed by Barco Well Services on February 8, 2008 at a total depth of approximately 120 feet. The boring was drilled using mud rotary method with PVC screening from approximately 45 to 65 feet below grade surface (bgs) and 85 to 105 feet bgs. Static water level was

reported at approximately 42 feet bgs on February 8, 2007 with a well yield of approximately 20 gallons per minute (gpm).

**Well B (200542)** – Well B is located at 505 John McCain Rd. in Colleyville, Texas. The well is owned by Mr. Tom Risley and was installed and completed by Geyer Drilling Co. Inc. on November 26, 2009 at a total depth of approximately 745 feet. The boring was drilled using mud rotary method with torch slotted steel screening from approximately 640 to 745 bgs. Static water level was reported at approximately 590 feet bgs on November 30, 2009 with a well yield of approximately 25+ gpm.

**Well C (166665)** – Well C is located at 7409 Pleasant Run Rd. in Colleyville, Texas. The well is owned by Trinity Broadcasting Network and was installed and completed by Barco Well Services on December 8, 2008 at a total depth of approximately 117 feet. The boring was drilled using mud rotary method with PVC screening from approximately 48 to 78 feet bgs and 98 to 108 feet bgs. Static water level was reported at approximately 38 feet bgs on December 10, 2008 with a well yield of approximately 15 gpm.

**Well D (165321)** – Well D is located at 7409 Pleasant Run Rd. in Colleyville, Texas. The well is owned by Trinity Broadcasting Network and was installed and completed by Barco Well Services on November 17, 2008 at a total depth of approximately 67 feet. The boring was drilled using mud rotary method with PVC screening from approximately 27 to 47 feet bgs and 56 to 66 feet bgs. Static water level was reported at approximately 19 feet bgs on November 17, 2008 with a well yield of approximately 18 gpm.

**Well E (163356)** Well E is located at 7409 Pleasant Run Rd. in Colleyville, Texas. The well is owned by Trinity Broadcasting Network and was installed and completed by Barco Well Services on November 3, 2008 at a total depth of approximately 87 feet. The boring was drilled using mud rotary method with PVC screening from approximately 20 to 60 feet bgs and 70 to 82 feet bgs. Static water level was reported at approximately 19 feet bgs on November 3, 2008 with a well yield of approximately 2 gpm.

**Well F (74417)** Well F is located at 7112 Pleasant Run Rd. in Colleyville, Texas. The well is owned by Mr. Doug Miller and was installed and completed by Barco Well Services on November 22, 2005 at a total depth of approximately 130 feet. The boring was drilled using mud rotary method with PVC screening from approximately 30 to 60 feet bgs and 80 to 100 feet bgs. Static water level was reported at approximately 36 feet bgs on November 23, 2005 with a well yield of approximately 18 gpm.

**Well G (45479)** Well G is located at 7600 Monticello Pkwy. in Colleyville, Texas. The well is owned by Hills of Monticello HOA and was installed and completed by Barco Well Services on July 26, 2004 at a total depth of approximately 82 feet. The boring was drilled using mud rotary method with PVC screening from approximately 20 to 52

feet bgs and 62 to 80 feet bgs. Static water level was reported at approximately 14 feet bgs on July 26, 2004 with a well yield of approximately 25 gpm.

**Well H (79042)** Well H is located at 406 John McCain Rd. in Colleyville, Texas. The well is owned by Mr. Jim Lafferty and was installed and completed by Barco Well Services on January 23, 2006 at a total depth of approximately 66 feet. The boring was drilled using mud rotary method with PVC screening from approximately 30 to 60 feet bgs. Static water level was reported at approximately 31 feet bgs on January 23, 2006 with a well yield of approximately 10 gpm.

**Well I (79044)** Well I is located at 406 John McCain Rd. in Colleyville, Texas. The well is owned by Mr. Jim Lafferty and was installed and completed by Barco Well Services on January 26, 2006 at a total depth of approximately 70 feet. The boring was drilled using mud rotary method with PVC screening from approximately 28 to 68 feet bgs. Static water level was reported at approximately 28 feet bgs on January 26, 2006 with a well yield of approximately 12 gpm.

**Well J (233395)** – Well J is located at 100 Adams Ct. in Colleyville, Texas. The well is owned by Hills of Monticello HOA and was installed and completed by Barco Well Services on August 23, 2010 at a total depth of approximately 76 feet. The boring was drilled using mud rotary method with PVC screening from approximately 43 to 53 feet bgs and 63 to 73 feet bgs. Static water level was reported at approximately 27 feet bgs on February 8, 2007 with a well yield of approximately 15 gallons per minute (gpm). Kleinfelder attempted to sample Well J in February 2011. While contacting Mr. Mike Farrar (Hills of Monticello HOA Maintenance Supervisor) for access to the well, he stated that Well J has been dry for over a year. Well J was not sampled during this investigation due to lack of water.

During the initial review of potential water wells, a single well was noted to the north in Southlake. However, based on discussions with the property owner and field verification, a well was not identified in this area and was not included in this study.

The well locations monitored are depicted on Figure 1 (Site Location Map).

## 2 SITE GEOLOGY/HYDROGEOLOGY

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### 2.1 SITE TOPOGRAPHY AND GEOLOGY

According to the 1978 USGS Colleyville, Texas Topographic Quadrangle, the vicinity of the wells is located approximately between 600 and 640 feet above mean sea level (AMSL). The site is situated on a topographic high with a slight gradient to the north towards Big Bear Creek.

According to the 1987 Bureau of Economic Geology *Geologic Atlas of Texas, Dallas Sheet*, the site is underlain by the Woodbine Formation (Kwb) of Cretaceous age. The Woodbine Formation crops out at the surface to depths ranging from approximately 75 to 100 feet bgs. The Woodbine is a near shore formation deposited during late Cretaceous geologic time composed of fine to coarse grained ferruginous sandstones with varying colors of shale, clay, sand, and sandy clays. In north-central Texas, the Woodbine is subdivided into the Lewisville (upper) and Dexter (lower) Members. Generally, the formation descends southeasterly beneath the land surface at approximately 35 feet per mile and thickens eastward.

### 2.2 SITE HYDROGEOLOGY

According to the Texas Water Development Board (TWDB) and drillers logs from the sampled wells, the city is underlain by the Woodbine Aquifer (minor aquifer) located approximately 19 to 42 feet below ground surface (bgs) and the Paluxy Aquifer (major aquifer) located approximately 590 to 730 feet bgs.

#### **Woodbine Formation**

The Woodbine Formation is Cretaceous in geologic age and contains water bearing sand and sandstone beds interbedded with shale and clay. These water bearing zones comprise the Woodbine Aquifer that is recognized as a Minor Aquifer in the State of Texas. The formation and recharge zone crops out on the eastern portions of Tarrant County and continues to dip eastward until reaching a maximum depth of approximately 2,500 feet with a regional dip to the southeast averaging 35 feet per mile. Water quality within the aquifer varies significantly in productivity and quality with the lower portions of the aquifer utilized for domestic and municipal water supplies. The upper portions of the

aquifer generally yield water with highly elevated concentrations of iron that limits its use.

### **Paluxy Aquifer**

The Paluxy aquifer is the upper member of the Trinity Group (Major Aquifer) cropping out to the west of the City of Colleyville in a north to south occurrence including Montague, Wise, Parker, western Tarrant, and Hood Counties. The Paluxy Formation and Aquifer dips to the southeast where beneath the City of Colleyville it occurs approximately 500 to 750 feet bgs. The Paluxy aquifer is recharged from the leaching of surface water sources in the outcrop areas. The Paluxy Aquifer is separated from the lower member of the Trinity Group, the Twin Mountains Aquifer, by the Glen Rose Formation (aquitard). The Paluxy Aquifer yields small to moderate amounts of fresh to slightly saline water primarily to municipalities but also services industrial and domestic supplies as well. The aquifer is composed of limestones, sands, gravels, clays, and conglomerates.

### **Informational Sources included:**

USGS Topographic Map(s) – Colleyville, Texas Quadrangle, 1981

Bureau of Economic Geology – Geologic Atlas of Texas Dallas Sheet, 1987

Texas Water Development Board – 2011

### 3 FIELD INVESTIGATION

Groundwater sampling activities were performed at each individual well site and selected laboratory analysis and methods utilized are detailed below.

#### 3.1 GROUNDWATER SAMPLING

Groundwater sampling was performed for nine (9) existing private supply water wells in the City of Colleyville, Texas previously by State of Texas licensed water well drillers. The water wells are designated as Wells A through I.

Prior to sampling, the water well pumps were engaged (purged) and allowed to run for a duration of at least thirty (30) minutes to obtain a representative sample of groundwater conditions. Before sampling, produced well water was field screened using a photoionization detector (PID) for the presence of volatile organic compounds and subjected to a pH field test. Below is a summary of well information and field observations at the time of sampling.

Water well	Sample Date	Well Owner	Field Observations
Well A	2-22-11	Bryant Thomason	Water was red-brown to brown during purging. Water was light brown during sampling. No PID readings. pH reading of 6.8 during sampling.
Well B	2-22-11	Tom Risley	Water was clear during purging and sampling. No PID readings. pH reading of 7.6 during sampling.
Well C	2-22-11	Trinity Broadcasting Network	Water red-brown to brown during purging. Water cleared after 5 minutes. No PID readings. pH reading of 6.4 during sampling.
Well D	2-22-11	Trinity Broadcasting Network	Water was red-brown during purging. Water cleared after 10 minutes. No PID readings. pH of 6.8 during sampling.
Well E	2-22-11	Trinity Broadcasting Network	Water was clear during purging and sampling. No PID readings. pH of 6.8 during sampling.
Well F	2-22-11	Doug Miller	Water red to dark brown during purging. Water was red to dark brown during sampling. No PID readings. pH reading of 6.6 during sampling.
Well G	2-23-11	Hills of Monticello HOA	Water was clear during purging and sampling. No PID readings. pH of 6.8 during sampling.
Well H	3-2-11	Jim Lafferty	Water was clear during purging and sampling. No PID readings. pH of 6.4 during sampling.
Well I	3-2-11	Jim Lafferty	Water was clear during purging and sampling. No PID readings. pH of 6.4 during sampling.

### 3.2 LABORATORY PROGRAM

The groundwater samples were placed in laboratory-supplied glassware and preserved in accordance with the selected analytical methods in a cooler with ice. The samples were shipped under chain-of-custody documentation to Accutest Laboratories in Houston, Texas. The groundwater sample analysis included analysis of VOCs by EPA Method SW-846-8260B, TPH by Method TX-1005, Methane, Ethane, and Ethene by Method RSKSOP-147/175, Barium, Sodium, and Strontium by EPA Method 200.7. Additional analysis included ethylene glycol by EPA Method SW-8015B, Chlorides by Method SM 4500 CL C, Total Dissolved Solids by Method SM 2540C, and laboratory pH evaluation by Method SM 4500H+B/9040. For laboratory control purposes, the samples collected from the wells were issued the following control numbers: Well A (165321), Well B (6), Well C (9), Well D (1633), Well E (7), Well F (74417), Well G (10), Well H (79042), and Well I (79044). The laboratory data sheets and chain of custody documentation are included in the Appendix.

## 4 GROUNDWATER ANALYTICAL RESULTS

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This section provides a summary of our analytical results and, where available, applicable regulatory threshold values.

### 4.1 GROUNDWATER RESULTS

For discussion purposes, the resulting groundwater analytical results were compared to the National Primary Drinking Water Regulations (NPDWR) defined by the EPA regarding Drinking Water Contaminants when criteria was available. According to the EPA, "The NPDWRs are legally enforceable standards that apply to public water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water." However, the water collected during this sampling event is not indicative of drinking water and the NPDWRs should only be used as comparison values of water quality. The tabulated laboratory results and applicable Action Levels for groundwater are provided in Table 1 of this report.

#### **Volatile Organic Compounds (VOCs)**

The groundwater samples collected did not exhibit VOCs above laboratory method detection limits.

#### **Total Petroleum Hydrocarbons (TPH)**

The groundwater samples collected did not exhibit TPH above laboratory method detection limits.

#### **Barium, Sodium, and Strontium**

The groundwater samples collected exhibited concentrations of Barium ranging from 0.0045 mg/l to 0.0502 mg/L, Sodium ranging from 32.0 mg/L to 222.0 mg/L, and Strontium ranging from 0.12 mg/L to 1.47 mg/L. Well I exhibited the highest concentrations of Barium (0.0502 mg/L), Sodium (271.0 mg/L), and Strontium (1.47 mg/L). The detected concentrations of Barium are below the NPDWR standards. Sodium and Strontium do not have comparable values within the NPDWR database of contaminants. Please refer to Table 1 for well specific concentrations.

### **Methane, Ethene, and Ethane**

The groundwater samples collected exhibited concentrations of methane ranging from 0.00033 mg/L to 0.00486 mg/L. Wells F through I did not exhibit concentrations of methane above laboratory detection limits. The groundwater samples collected did not exhibit VOCs above laboratory method detection limits.

### **Chloride, Total Dissolved Solids (TDS), and pH**

The groundwater samples collected exhibited chloride concentrations ranging from 1.5 mg/L to 350.0 mg/L, Total Dissolved Solids concentrations ranging from 185 mg/L to 1760 mg/L, and pH levels ranging from 6.85 s.u. to 9.02 s.u. Water samples collected from Well I was above the NPDWR standard for Chloride (250.0 mg/L) with a concentration of 350.0 mg/L. Well B and I exhibited TDS concentrations of 563.0 mg/L and 1,760.0 mg/L respectively, above the NPDWR standard of 500.0 mg/L. Well B exhibited a pH level of 9.02 s.u. above the NPDWR standard ranging between 6.5 s.u. to 8.5 s.u. Please refer to Table 2 for well specific concentrations.

### **Ethylene Glycol**

The groundwater samples collected from Wells C, F, G, and I exhibited concentrations of ethylene glycol ranging from 1.2 mg/L to 3.0 mg/L. Ethylene Glycol is not listed within the NPDWR database of contaminants. The Well IDs 108393, 200542, 165321, 163356, and 79042 did not exhibit concentrations of ethylene glycol above laboratory detection limits. As reference, the identified ethylene glycol concentrations are below the residential groundwater ingestion value (<sup>GW</sup>GW<sub>Ing</sub> PCL) of 49 mg/L utilized by the TCEQ to evaluate this compound under the Texas Risk Reduction Program. Please refer to Table 2 for well specific concentrations.

## 5 FINDINGS AND RECOMMENDATIONS

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Kleinfelder has developed the following based on this investigation:

- The results of this study provide documentation of groundwater conditions prior to subsurface exploration or production within 2,000 feet with regard to produced water clarity, pH, field evidence of VOCs, and laboratory evaluation for multiple water quality indicators.
- It is recommended that the same wells we evaluated on a specific schedule that complies with current City requirements prior to and immediately following planned subsurface activities near the wells.

## 6 ACRONYMS

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A listing of common acronyms associated with subsurface investigation activities has been provided to aid the presentation of our findings. Additional acronyms may be defined within the text of this report.

AMSL	Above mean sea level
AST	Aboveground storage tank
ASTM	ASTM International
AUL	Activity Use Limitation
BGS	Below Grade Surface
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information
CESQG	Conditionally Exempt Small Quantity Generator
CLI	Closed Landfill Inventory
COC	Chemicals of Concern
DTW	Depth to water (typically from top of casing)
ESA	Environmental Site Assessment
FID	Flame Ionization Detector
FRP	Fiberglass Reinforced Plastic
HASP	Health and Safety Plan
HREC	Historic Recognized Environmental Condition
IC	Institutional Control
IDW	Investigation-Derived Waste
IHW	TCEQ Industrial & Hazardous Waste Program
IOP	TCEQ Innocent Owner / Operator Program
Kleinfelder	Kleinfelder Central, Inc.
LQG	Large Quantity Generator
LPST	Leaking Petroleum Storage Tank
MW	Monitor Well
MSA/PSA	Master Services Agreement/Professional Services Agreement
MSD	Municipal Setting Designation
MSDS	Material Safety Data Sheet
NFRAP	Former CERCLIS sites where no further remedial action is planned
NORM	(Technologically Enhanced) Naturally Occurring Radioactive Material
PCL	Protective Concentration Level
PCLE Zone	PCL Exceedance Zone
PCBs	Polychlorinated Biphenyls
PID	Photo Ionization Detector
PST	TCEQ Petroleum Storage Tank Program
RAL	Residential Assessment Level

RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
ROD	Records of Decision
RRC	Texas Railroad Commission
SB	Soil Boring
SPLP	Synthetic Precipitation Leaching Procedure
SQG	Small Quantity Generators List
SVOCs	Semi-volatile Organic Compounds
TCEQ	Texas Commission on Environmental Quality
TCLP	Toxicity Characteristic Leaching Procedure
TESS	Texas Excavation Safety System
TNRCC	Texas Natural Resource Conservation Commission (now the TCEQ)
TOX	Total Organic Halides
TPH	Total Petroleum Hydrocarbons
TPWD	Texas Parks and Wildlife Department
TRRP	Texas Risk Reduction Program
TSD	Treatment, Storage, and Disposal
TWDB	Texas Water Development Board
TXU	Texas Utilities
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCSA	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VCP	Voluntary Cleanup Program
VOCs	Volatile Organic Compounds
WASTEMGT	TCEQ Commercial Hazardous & Solid Waste Management Facilities



# **TABLES**



Table 2  
Groundwater Sample Results  
Methane, Ethane, Ethene, General Chemistry, and Ethylene Glycol

Sample ID		National Drinking Water Standards (40 CFR 141)	Well A	Well B	Well C	Well D	Well E	Well F	Well G	Well H	Well I
			2/22/2011	2/22/2011	2/22/2011	2/22/2011	2/22/2011	2/22/2011	2/23/2011	3/2/2011	3/2/2011
Sample Date	CAS No.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Methane	74-82-8	NA	0.00033 J	0.00486	0.00421	0.00139	0.00063	<0.00016	<0.00016	<0.00016	<0.00016
Ethane	74-84-0	NA	<0.00032	<0.00032	<0.00032	<0.00032	<0.00032	<0.00032	<0.00032	<0.00032	<0.00032
Ethene	74-85-1	NA	<0.00043	<0.00043	<0.00043	<0.00043	<0.00043	<0.00043	<0.00043	<0.00043	<0.00043
Chloride	7782-50-5	250	142	1.5	149	40.7	18.4	61.6	79.5	100	350
Solids, Total Dissolved	NA	500	328	563	347	368	185	248	483	468	1760
pH	NA	6.5-8.5	7.61	9.02	7.36	7.93	7.73	7.75	7.92	6.85	7.64
Ethylene Glycol	107-21-1	NA	<0.56	<0.56	1.2 J	<0.56	<0.56	2.3 J	3 J	<0.56	1.4 J

**Notes:**

Gray denotes an analyte laboratory analysis detection.

Blue indicates a value above the National Primary Drinking Water Regulations.

**Acronyms:**

J - (EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.

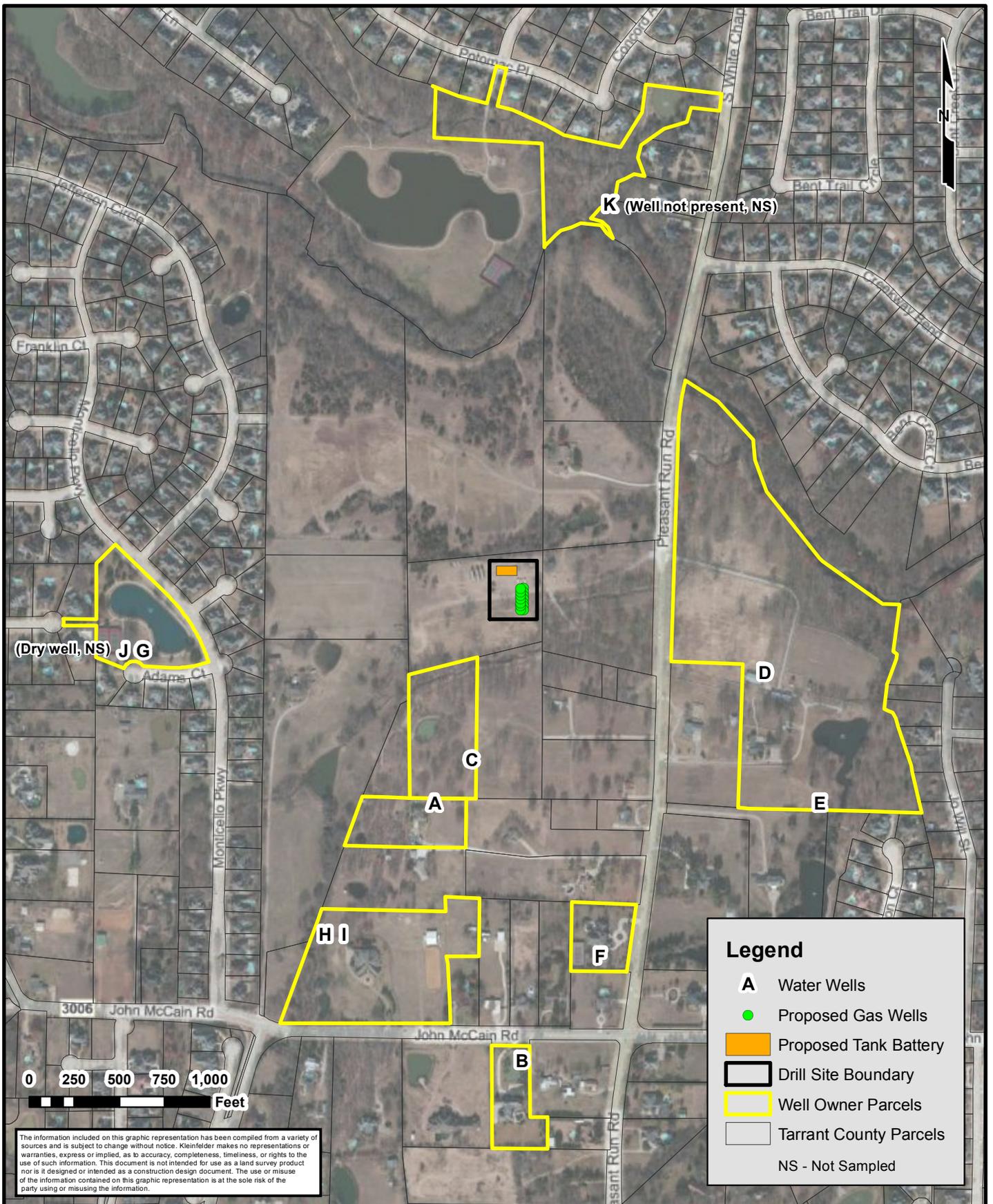
< - Laboratory analysis non-detect result.

B - Indicates analyte found in associated method blank

NA - Not Available



# FIGURES



The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.

 <p><b>KLEINFELDER</b> Bright People. Right Solutions. www.kleinfelder.com</p>	PROJECT NO. 116065	<b>SITE PLAN</b>  City of Colleyville Baseline Water Well Evaluation Colleyville, Texas	FIGURE
	DRAWN: 03/17/11		<b>1</b>
	DRAWN BY: CS		
	CHECKED BY: MM		
FILE NAME: Site_Plan.mxd			



# **APPENDIX A**

Laboratory Data Sheets and Chain of Custody Documentation

**Technical Report for**

**Kleinfelder**

**Colleyville**

**Accutest Job Number: T69660**

**Sampling Date: 02/22/11**

**Report to:**

**Kleinfelder  
7805 Mesquite Bend Drive Suite 100  
Irving, TX 75063  
KMiears@kleinfelder.com**

**ATTN: Kyle Miears**

**Total number of pages in report: 72**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

*Paul K Canevaro*

**Paul Canevaro  
Laboratory Director**

**Client Service contact: Sylvia Garza 713-271-4700**

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)  
OK (9103)

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Test results relate only to samples analyzed.

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### Sample Summary

Kleinfelder

Job No: T69660

Colleyville

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
T69660-1	02/22/11	08:30	02/23/11	AQ	Ground Water	74417
T69660-2	02/22/11	10:20	02/23/11	AQ	Ground Water	7
T69660-3	02/22/11	11:15	02/23/11	AQ	Ground Water	1633

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Kleinfelder

**Job No** T69660

**Site:** Colleyville

**Report Date** 3/10/2011 9:06:39 AM

3 Sample(s) were collected on 02/22/2011 and were received at Accutest on 02/23/2011 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of T69660. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** VZ3122

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69419-5MS, T69419-5MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Toluene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

### Volatiles by GC By Method RSKSOP-147/175

**Matrix** AQ

**Batch ID:** F:GFF438

- T69660-3: Analysis performed at Accutest Laboratories, Orlando, FL.
- T69660-2: Analysis performed at Accutest Laboratories, Orlando, FL.
- T69660-1: Analysis performed at Accutest Laboratories, Orlando, FL.

### Extractables by GC By Method TNRCC 1005

**Matrix** AQ

**Batch ID:** OP17572

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69616-7MS, T69616-7MSD were used as the QC samples indicated.

### Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP14056

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69622-1DUP, T69622-1MS, T69622-1MSD, T69622-1SDL were used as the QC samples for metals.

### Wet Chemistry By Method SM 2540C

<b>Matrix</b> AQ	<b>Batch ID:</b> GN29005
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- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69283-2DUP were used as the QC samples for Solids, Total Dissolved.

### Wet Chemistry By Method SM 4500 CL C

<b>Matrix</b> AQ	<b>Batch ID:</b> GP11910
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- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69627-3DUP, T69627-3MS were used as the QC samples for Chloride.

### Wet Chemistry By Method SM 4500H+B/9040

<b>Matrix</b> AQ	<b>Batch ID:</b> GN28978
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- Sample(s) T69617-1DUP were used as the QC samples for pH.
- The following samples were run outside of holding time for method SM 4500H+B/9040: T69660-1, T69660-2

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Accutest Laboratories Gulf Coast, Inc.

**Job No:** T69660

**Site:** KLETXFW: Colleyville

**Report Date** 3/2/2011 2:51:52 PM

3 Samples were collected on 02/22/2011 and received at Accutest on 02/25/2011 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of T69660. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GC By Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GFF438

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F80150-4DUP, T69627-1MS were used as the QC samples indicated.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

\_\_\_\_\_  
Svetlana Izosimova, QA Officer (signature on file)

Date: March 02, 2011

LABORATORY REVIEW CHECKLIST: REPORTABLE DATA							
Laboratory Name: Accutest Southeast				Date:03-02-2011			
Project Name: KLETXFW: Colleyville				Laboratory Job Number: T69660			
Reviewer Name: Svetlana Izosimova				Batch Number(s): GFF438			
# <sup>1</sup>	Analysis <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
	OI	CHAIN-OF-CUSTODY (COC): 1) Were all samples included on a completed COC? 2) Did the samples requiring chemical preservation arrive at the laboratory preserved? 3) Were samples requiring thermal preservation within temperature specs at log-in? 4) Were the samples in the appropriate containers?	X				
	OI	SAMPLE AND QUALITY CONTROL (QC) IDENTIFICATION: 1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers? 2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
	OI	TEST REPORTS: 1) Were samples prepared and analyzed within holding times? 2) Were reported results within calibration range? 3) Were all calculations verified? 4) Were all analyte identifications verified? 5) Were sample quantitation limits reported for all analytes not detected? 6) If required for the project, were the tentatively identified compounds reported? 7) Were results reported on a dry weight basis?	X				
	O	SURROGATE RECOVERY DATA: 1) Were surrogates added prior to extraction? 2) Were surrogate percent recoveries in all samples within the laboratory QC acceptance criteria?	X		X		
	OI	TEST REPORTS FOR BLANK SAMPLES: 1) Were appropriate type(s) of blanks analyzed? 2) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? 3) Were blanks free of detected compounds?	X				
	OI	LABORATORY CONTROL SAMPLES (LCSs): 1) Was each LCS prepared from a source external to the calibration standards? 2) Were all project-required analytes included in the LCS? 3) Was each LCS taken through the entire analytical procedure, including preparation and, if applicable, cleanup procedures? 4) Were LCSs analyzed at the required frequency? 5) Were LCS percent recoveries within the laboratory QC acceptance criteria?	X				
	OI	MATRIX SPIKE (MS) and MATRIX SPIKE DUPLICATE (MSD) DATA: 1) Were all project-required analytes included in the MS and MSD? 2) Were MS/MSD analyzed at the appropriate frequency? 3) Were MS percent recoveries within the laboratory QC acceptance criteria? 4) Were MSD percent recoveries and relative percent differences (RPDs) within the laboratory QC acceptance criteria?	X		X		
	OI	ANALYTICAL DUPLICATE DATA: 1) Were appropriate analytical duplicates analyzed for each matrix? 2) Were analytical duplicates analyzed at the appropriate frequency? 3) Were RPDs or relative standard deviations within the laboratory QC acceptance criteria?	X				
	OI	METHOD QUANTITATION LIMITS (MQLs): Is the concentration of the lowest non-zero calibration standard in the calibration curve reported?	X				1
	OI	The ND listed on the hard copy reports and/or EDD represents non detection of the target analyte at a concentration below the MDL.			X		
	OI	VALIDATION RESULTS FOR NON-REFERENCE METHODS Were all samples prepared and analyzed using a Reference Method?	X				
	OI	OTHER PROBLEMS/ANOMALIES: Are all known problems, anomalies or special conditions (e.g., use of minimum analytical limits) associated with the data noted in the Laboratory Review Checklist and Exception Reports?	X				

LAB REVIEW CHECKLIST (continued): SUPPORTING DATA							
Laboratory Name: Accutest Southeast				Date:03-02-2011			
Project Name: KLETXFW: Colleyville				Laboratory Job Number: T69660			
Reviewer Name: Svetlana Izosimova				Batch Number(s): GFF438			
# <sup>1</sup>	Analysis <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
	OI	INITIAL CALIBRATION (ICAL) and ICAL VERIFICATION (ICV): 1) Were response factors (RFs) and/or relative response factors (RRFs) within the method-required QC acceptance criteria? 2) Were percent RSDs or correlation coefficient criteria met? 3) Were the number of standards recommended in the method used for all analytes? 4) Were all points generated between the lowest and highest standard used to calculate the curve? 5) Are ICV data available for all instruments used? 6) Has the calibration curve been verified using a NIST-traceable second source?	X				
	OI	CONTINUING CALIBRATION VERIFICATION (CCV): 1) Was the CCV analyzed at the method-required frequency? 2) Were percent differences within the method-required QC acceptance criteria? 3) Was the ICAL curve verified for each analyte of interest?	X				
	O	MASS SPECTRAL TUNING: 1) Was the appropriate compound for the method used for tuning? 2) Were ion abundance data within the method-required QC acceptance criteria?			X		
	O	INTERNAL STANDARD (IS): 1) Were IS area counts within the method-required QC acceptance criteria? 2) Were IS retention times within the method-required QC acceptance criteria?			X		
	OI	RAW DATA (NELAC Section 1 Appendix A Glossary, and Section 5.12): 1) Were the raw data (e.g., chromatograms, spectral data) reviewed by an analyst? 2) Were all data associated with manual integrations flagged?	X				
	O	DUAL COLUMN CONFIRMATION: 1) Did dual column confirmation results meet the method-required QC acceptance criteria? 2) Were all percent differences less than 25%?			X		
	O	TENTATIVELY IDENTIFIED COMPOUNDS (TICs): If TICs were requested, were the mass spectra and TIC data reviewed?			X		
	I	ICS RESULTS: 1) Were percent recoveries within method acceptance criteria? 2) Were the absolute values for all analytes less than the IDL?	X				
	I	SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS: Were percent differences, recoveries, and linearity within the QC acceptance criteria specified in the method?	X				
	OI	VALIDATION RESULTS FOR NON-REFERENCE METHODS: Are all non-Reference Methods documented and validated (NELAC 5.10.2.1)?			X		
	OI	METHOD DETECTION LIMIT (MDL) STUDIES: Are MDL studies for each analyte in a given matrix current, on file, less than a year old?	X				
	OI	STANDARDS TRACEABILITY: Are all standards used in the analyses NIST-traceable?	X				
	OI	DOCUMENTATION OF WATER AND REAGENTS QUALITY: Is documentation of the quality of water and reagents used in the analyses on file?	X				
	OI	COMPOUND/ANALYTE IDENTIFICATION PROCEDURES: Are the procedures for compound identification documented?	X				
	OI	DEMONSTRATION OF ANALYST CAPABILITY: 1) Was demonstration of capability conducted according to NELAC Appendix 5C? 2) Is documentation of the analyst's demonstration of capability on file? 3) Is documentation of the analyst's proficiency up-to-date and on file?	X				
	OI	PROFICIENCY TEST REPORTS (NELAC 5.4.2): Are proficiency testing or interlaboratory comparison results on file?	X				
	OI	LABORATORY STANDARD OPERATING PROCEDURES (SOPs): Are laboratory SOPs current and on file for each method performed?	X				

<sup>1</sup> Items identified by the letter "R" should be submitted to TNRCC in the Data Package. Items identified by the letter "S" should be retained and made available to the TNRCC upon request for a period of three years after the data are submitted.

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not Reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

<b>LAB REVIEW CHECKLIST (continued): Exception Reports</b>	
Laboratory Name: Accutest Southeast	Date:03-02-2011
Project Name: KLETXFW: Colleyville	Laboratory Job Number: T69660
Reviewer Name: Svetlana Izosimova	Batch Number(s): GFF438
ER #	Description
1	For reporting purposes, the RL on the reports is equal to the MQL. The MDL is equal to the MDL/SQL. The unadjusted MQL is reported in the blank result page for all analysis.
2	All anomalies are discussed in the case narrative.
	All supporting laboratory documentation is on file with the laboratory's QA/QC department

## 1. APPENDIX A LABORATORY DATA PACKAGE COVER PAGE

This data package consists of:

- This signature page, the laboratory review checklist, and the following reportable data:
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.
- The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

**Release Statement:** I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By me signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

**Check, if applicable:**  This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Svetlana Izosimova                      On file                      QA Officer                      03-02-11  
 Name:    Signature:    Title:    Date:

Sample Results

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Report of Analysis

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# Report of Analysis

<b>Client Sample ID:</b> 74417		
<b>Lab Sample ID:</b> T69660-1		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z014385.D	1	02/23/11	NM	n/a	n/a	VZ3122
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	0.0047 U	0.050	0.0047	mg/l	
71-43-2	Benzene	0.00050 U	0.0020	0.00050	mg/l	
108-86-1	Bromobenzene	0.00082 U	0.0020	0.00082	mg/l	
74-97-5	Bromochloromethane	0.0016 U	0.0020	0.0016	mg/l	
75-27-4	Bromodichloromethane	0.00049 U	0.0020	0.00049	mg/l	
75-25-2	Bromoform	0.0014 U	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	0.00063 U	0.0020	0.00063	mg/l	
135-98-8	sec-Butylbenzene	0.00052 U	0.0020	0.00052	mg/l	
98-06-6	tert-Butylbenzene	0.0013 U	0.0020	0.0013	mg/l	
108-90-7	Chlorobenzene	0.00056 U	0.0020	0.00056	mg/l	
75-00-3	Chloroethane	0.00092 U	0.0020	0.00092	mg/l	
67-66-3	Chloroform	0.00064 U	0.0020	0.00064	mg/l	
95-49-8	o-Chlorotoluene	0.00070 U	0.0020	0.00070	mg/l	
106-43-4	p-Chlorotoluene	0.00056 U	0.0020	0.00056	mg/l	
75-15-0	Carbon disulfide	0.00053 U	0.0020	0.00053	mg/l	
56-23-5	Carbon tetrachloride	0.00066 U	0.0020	0.00066	mg/l	
75-34-3	1,1-Dichloroethane	0.00052 U	0.0020	0.00052	mg/l	
75-35-4	1,1-Dichloroethylene	0.00050 U	0.0020	0.00050	mg/l	
563-58-6	1,1-Dichloropropene	0.00078 U	0.0020	0.00078	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.0019 U	0.0020	0.0019	mg/l	
106-93-4	1,2-Dibromoethane	0.00055 U	0.0020	0.00055	mg/l	
107-06-2	1,2-Dichloroethane	0.00062 U	0.0020	0.00062	mg/l	
78-87-5	1,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
142-28-9	1,3-Dichloropropane	0.00054 U	0.0020	0.00054	mg/l	
594-20-7	2,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
124-48-1	Dibromochloromethane	0.00061 U	0.0020	0.00061	mg/l	
75-71-8	Dichlorodifluoromethane	0.0011 U	0.0020	0.0011	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.00056 U	0.0020	0.00056	mg/l	
10061-01-5	cis-1,3-Dichloropropene	0.00048 U	0.0020	0.00048	mg/l	
541-73-1	m-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	0.00069 U	0.0020	0.00069	mg/l	
106-46-7	p-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> 74417	
<b>Lab Sample ID:</b> T69660-1	<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

**VOA 8260 List**

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	0.00045 U	0.0020	0.00045	mg/l	
10061-02-6	trans-1,3-Dichloropropene	0.00068 U	0.0020	0.00068	mg/l	
100-41-4	Ethylbenzene	0.00055 U	0.0020	0.00055	mg/l	
591-78-6	2-Hexanone	0.0032 U	0.010	0.0032	mg/l	
87-68-3	Hexachlorobutadiene	0.0013 U	0.0020	0.0013	mg/l	
98-82-8	Isopropylbenzene	0.00051 U	0.0020	0.00051	mg/l	
99-87-6	p-Isopropyltoluene	0.00065 U	0.0020	0.00065	mg/l	
108-10-1	4-Methyl-2-pentanone	0.0099 U	0.010	0.0099	mg/l	
74-83-9	Methyl bromide	0.00094 U	0.0020	0.00094	mg/l	
74-87-3	Methyl chloride	0.00084 U	0.0020	0.00084	mg/l	
74-95-3	Methylene bromide	0.00065 U	0.0020	0.00065	mg/l	
75-09-2	Methylene chloride	0.00041 U	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	0.0039 U	0.010	0.0039	mg/l	
1634-04-4	Methyl Tert Butyl Ether	0.00073 U	0.0020	0.00073	mg/l	
91-20-3	Naphthalene	0.00065 U	0.0050	0.00065	mg/l	
103-65-1	n-Propylbenzene	0.00057 U	0.0020	0.00057	mg/l	
100-42-5	Styrene	0.00056 U	0.0020	0.00056	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.00080 U	0.0020	0.00080	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00062 U	0.0020	0.00062	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.0012 U	0.0020	0.0012	mg/l	
79-00-5	1,1,2-Trichloroethane	0.00098 U	0.0020	0.00098	mg/l	
87-61-6	1,2,3-Trichlorobenzene	0.0011 U	0.0020	0.0011	mg/l	
96-18-4	1,2,3-Trichloropropane	0.0013 U	0.0020	0.0013	mg/l	
120-82-1	1,2,4-Trichlorobenzene	0.00082 U	0.0020	0.00082	mg/l	
95-63-6	1,2,4-Trimethylbenzene	0.00065 U	0.0020	0.00065	mg/l	
108-67-8	1,3,5-Trimethylbenzene	0.00070 U	0.0020	0.00070	mg/l	
127-18-4	Tetrachloroethylene	0.00091 U	0.0020	0.00091	mg/l	
108-88-3	Toluene	0.00043 U	0.0020	0.00043	mg/l	
79-01-6	Trichloroethylene	0.00052 U	0.0020	0.00052	mg/l	
75-69-4	Trichlorofluoromethane	0.0012 U	0.0020	0.0012	mg/l	
75-01-4	Vinyl chloride	0.0010 U	0.0020	0.0010	mg/l	
1330-20-7	Xylene (total)	0.0017 U	0.0060	0.0017	mg/l	
	m,p-Xylene	0.0011 U	0.0040	0.0011	mg/l	
95-47-6	o-Xylene	0.00053 U	0.0020	0.00053	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-122%
17060-07-0	1,2-Dichloroethane-D4	94%		75-121%
2037-26-5	Toluene-D8	106%		87-119%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 74417	
<b>Lab Sample ID:</b> T69660-1	<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		80-133%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> 74417	
<b>Lab Sample ID:</b> T69660-1	<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 02/23/11
<b>Method:</b> RSKSOP-147/175	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FF10449.D	1	02/28/11	AFL	n/a	n/a	F:GFF438
Run #2							

CAS No.	Compound	Result	MLQ	SDL	Units	Q
74-82-8	Methane	0.00016 U	0.00050	0.00016	mg/l	
74-84-0	Ethane	0.00032 U	0.0010	0.00032	mg/l	
74-85-1	Ethene	0.00043 U	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

31  
3

<b>Client Sample ID:</b> 74417	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69660-1	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> TNRCC 1005 TX1005	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL049840.D	1	02/24/11	EM	02/24/11	OP17572	GLB727
Run #2							

Run #	Initial Volume	Final Volume
Run #1	30.1 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	0.58 U	2.5	0.58	mg/l	
	TPH (> C12-C28)	0.90 U	2.5	0.90	mg/l	
	TPH (> C28-C35)	0.90 U	2.5	0.90	mg/l	
	TPH (C6-C35)	0.58 U	2.5	0.58	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	100%		70-130%
98-08-8	aaa-Trifluorotoluene	90%		70-130%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 74417	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69660-1	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	0.0234 B	0.20	0.0034	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Sodium	46.8	5.0	0.10	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Strontium	0.252	0.010	0.00040	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA5512

(2) Prep QC Batch: MP14056

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Report of Analysis

<b>Client Sample ID:</b> 74417	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69660-1	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Chloride	61.6	2.0	0.76	mg/l	2	03/02/11	SS	SM 4500 CL C
Solids, Total Dissolved	248	10	2.6	mg/l	1	02/24/11	BG	SM 2540C
pH	7.75			su	1	02/23/11 10:44	LA	SM 4500H+ B/9040

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

# Report of Analysis

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3

<b>Client Sample ID:</b> 7		
<b>Lab Sample ID:</b> T69660-2		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z014386.D	1	02/23/11	NM	n/a	n/a	VZ3122
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	0.0047 U	0.050	0.0047	mg/l	
71-43-2	Benzene	0.00050 U	0.0020	0.00050	mg/l	
108-86-1	Bromobenzene	0.00082 U	0.0020	0.00082	mg/l	
74-97-5	Bromochloromethane	0.0016 U	0.0020	0.0016	mg/l	
75-27-4	Bromodichloromethane	0.00049 U	0.0020	0.00049	mg/l	
75-25-2	Bromoform	0.0014 U	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	0.00063 U	0.0020	0.00063	mg/l	
135-98-8	sec-Butylbenzene	0.00052 U	0.0020	0.00052	mg/l	
98-06-6	tert-Butylbenzene	0.0013 U	0.0020	0.0013	mg/l	
108-90-7	Chlorobenzene	0.00056 U	0.0020	0.00056	mg/l	
75-00-3	Chloroethane	0.00092 U	0.0020	0.00092	mg/l	
67-66-3	Chloroform	0.00064 U	0.0020	0.00064	mg/l	
95-49-8	o-Chlorotoluene	0.00070 U	0.0020	0.00070	mg/l	
106-43-4	p-Chlorotoluene	0.00056 U	0.0020	0.00056	mg/l	
75-15-0	Carbon disulfide	0.00053 U	0.0020	0.00053	mg/l	
56-23-5	Carbon tetrachloride	0.00066 U	0.0020	0.00066	mg/l	
75-34-3	1,1-Dichloroethane	0.00052 U	0.0020	0.00052	mg/l	
75-35-4	1,1-Dichloroethylene	0.00050 U	0.0020	0.00050	mg/l	
563-58-6	1,1-Dichloropropene	0.00078 U	0.0020	0.00078	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.0019 U	0.0020	0.0019	mg/l	
106-93-4	1,2-Dibromoethane	0.00055 U	0.0020	0.00055	mg/l	
107-06-2	1,2-Dichloroethane	0.00062 U	0.0020	0.00062	mg/l	
78-87-5	1,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
142-28-9	1,3-Dichloropropane	0.00054 U	0.0020	0.00054	mg/l	
594-20-7	2,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
124-48-1	Dibromochloromethane	0.00061 U	0.0020	0.00061	mg/l	
75-71-8	Dichlorodifluoromethane	0.0011 U	0.0020	0.0011	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.00056 U	0.0020	0.00056	mg/l	
10061-01-5	cis-1,3-Dichloropropene	0.00048 U	0.0020	0.00048	mg/l	
541-73-1	m-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	0.00069 U	0.0020	0.00069	mg/l	
106-46-7	p-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> 7		
<b>Lab Sample ID:</b> T69660-2		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

**VOA 8260 List**

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	0.00045 U	0.0020	0.00045	mg/l	
10061-02-6	trans-1,3-Dichloropropene	0.00068 U	0.0020	0.00068	mg/l	
100-41-4	Ethylbenzene	0.00055 U	0.0020	0.00055	mg/l	
591-78-6	2-Hexanone	0.0032 U	0.010	0.0032	mg/l	
87-68-3	Hexachlorobutadiene	0.0013 U	0.0020	0.0013	mg/l	
98-82-8	Isopropylbenzene	0.00051 U	0.0020	0.00051	mg/l	
99-87-6	p-Isopropyltoluene	0.00065 U	0.0020	0.00065	mg/l	
108-10-1	4-Methyl-2-pentanone	0.0099 U	0.010	0.0099	mg/l	
74-83-9	Methyl bromide	0.00094 U	0.0020	0.00094	mg/l	
74-87-3	Methyl chloride	0.00084 U	0.0020	0.00084	mg/l	
74-95-3	Methylene bromide	0.00065 U	0.0020	0.00065	mg/l	
75-09-2	Methylene chloride	0.00041 U	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	0.0039 U	0.010	0.0039	mg/l	
1634-04-4	Methyl Tert Butyl Ether	0.00073 U	0.0020	0.00073	mg/l	
91-20-3	Naphthalene	0.00065 U	0.0050	0.00065	mg/l	
103-65-1	n-Propylbenzene	0.00057 U	0.0020	0.00057	mg/l	
100-42-5	Styrene	0.00056 U	0.0020	0.00056	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.00080 U	0.0020	0.00080	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00062 U	0.0020	0.00062	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.0012 U	0.0020	0.0012	mg/l	
79-00-5	1,1,2-Trichloroethane	0.00098 U	0.0020	0.00098	mg/l	
87-61-6	1,2,3-Trichlorobenzene	0.0011 U	0.0020	0.0011	mg/l	
96-18-4	1,2,3-Trichloropropane	0.0013 U	0.0020	0.0013	mg/l	
120-82-1	1,2,4-Trichlorobenzene	0.00082 U	0.0020	0.00082	mg/l	
95-63-6	1,2,4-Trimethylbenzene	0.00065 U	0.0020	0.00065	mg/l	
108-67-8	1,3,5-Trimethylbenzene	0.00070 U	0.0020	0.00070	mg/l	
127-18-4	Tetrachloroethylene	0.00091 U	0.0020	0.00091	mg/l	
108-88-3	Toluene	0.00043 U	0.0020	0.00043	mg/l	
79-01-6	Trichloroethylene	0.00052 U	0.0020	0.00052	mg/l	
75-69-4	Trichlorofluoromethane	0.0012 U	0.0020	0.0012	mg/l	
75-01-4	Vinyl chloride	0.0010 U	0.0020	0.0010	mg/l	
1330-20-7	Xylene (total)	0.0017 U	0.0060	0.0017	mg/l	
	m,p-Xylene	0.0011 U	0.0040	0.0011	mg/l	
95-47-6	o-Xylene	0.00053 U	0.0020	0.00053	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-122%
17060-07-0	1,2-Dichloroethane-D4	93%		75-121%
2037-26-5	Toluene-D8	104%		87-119%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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3

<b>Client Sample ID:</b> 7 <b>Lab Sample ID:</b> T69660-2 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> Colleyville	<b>Date Sampled:</b> 02/22/11 <b>Date Received:</b> 02/23/11 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		80-133%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

32  
3

<b>Client Sample ID:</b> 7	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69660-2	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> RSKSOP-147/175	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FF10450.D	1	02/28/11	AFL	n/a	n/a	F:GFF438
Run #2							

CAS No.	Compound	Result	MQL	SDL	Units	Q
74-82-8	Methane	0.00063	0.00050	0.00016	mg/l	
74-84-0	Ethane	0.00032 U	0.0010	0.00032	mg/l	
74-85-1	Ethene	0.00043 U	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

32  
3

<b>Client Sample ID:</b> 7	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69660-2	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> TNRCC 1005 TX1005	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL049841.D	1	02/24/11	EM	02/24/11	OP17572	GLF727
Run #2							

Run #	Initial Volume	Final Volume
Run #1	30.1 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	0.58 U	2.5	0.58	mg/l	
	TPH (> C12-C28)	0.90 U	2.5	0.90	mg/l	
	TPH (> C28-C35)	0.90 U	2.5	0.90	mg/l	
	TPH (C6-C35)	0.58 U	2.5	0.58	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		70-130%
98-08-8	aaa-Trifluorotoluene	93%		70-130%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> 7								
<b>Lab Sample ID:</b> T69660-2						<b>Date Sampled:</b> 02/22/11		
<b>Matrix:</b> AQ - Ground Water						<b>Date Received:</b> 02/23/11		
<b>Project:</b> Colleyville						<b>Percent Solids:</b> n/a		

### General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Chloride	18.4	1.0	0.38	mg/l	1	03/02/11	SS	SM 4500 CL C
Solids, Total Dissolved	185	10	2.6	mg/l	1	02/24/11	BG	SM 2540C
pH	7.73			su	1	02/23/11 10:44	LA	SM 4500H+ B/9040

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

# Report of Analysis

<b>Client Sample ID:</b> 1633		
<b>Lab Sample ID:</b> T69660-3		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z014387.D	1	02/23/11	NM	n/a	n/a	VZ3122
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	0.0047 U	0.050	0.0047	mg/l	
71-43-2	Benzene	0.00050 U	0.0020	0.00050	mg/l	
108-86-1	Bromobenzene	0.00082 U	0.0020	0.00082	mg/l	
74-97-5	Bromochloromethane	0.0016 U	0.0020	0.0016	mg/l	
75-27-4	Bromodichloromethane	0.00049 U	0.0020	0.00049	mg/l	
75-25-2	Bromoform	0.0014 U	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	0.00063 U	0.0020	0.00063	mg/l	
135-98-8	sec-Butylbenzene	0.00052 U	0.0020	0.00052	mg/l	
98-06-6	tert-Butylbenzene	0.0013 U	0.0020	0.0013	mg/l	
108-90-7	Chlorobenzene	0.00056 U	0.0020	0.00056	mg/l	
75-00-3	Chloroethane	0.00092 U	0.0020	0.00092	mg/l	
67-66-3	Chloroform	0.00064 U	0.0020	0.00064	mg/l	
95-49-8	o-Chlorotoluene	0.00070 U	0.0020	0.00070	mg/l	
106-43-4	p-Chlorotoluene	0.00056 U	0.0020	0.00056	mg/l	
75-15-0	Carbon disulfide	0.00053 U	0.0020	0.00053	mg/l	
56-23-5	Carbon tetrachloride	0.00066 U	0.0020	0.00066	mg/l	
75-34-3	1,1-Dichloroethane	0.00052 U	0.0020	0.00052	mg/l	
75-35-4	1,1-Dichloroethylene	0.00050 U	0.0020	0.00050	mg/l	
563-58-6	1,1-Dichloropropene	0.00078 U	0.0020	0.00078	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.0019 U	0.0020	0.0019	mg/l	
106-93-4	1,2-Dibromoethane	0.00055 U	0.0020	0.00055	mg/l	
107-06-2	1,2-Dichloroethane	0.00062 U	0.0020	0.00062	mg/l	
78-87-5	1,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
142-28-9	1,3-Dichloropropane	0.00054 U	0.0020	0.00054	mg/l	
594-20-7	2,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
124-48-1	Dibromochloromethane	0.00061 U	0.0020	0.00061	mg/l	
75-71-8	Dichlorodifluoromethane	0.0011 U	0.0020	0.0011	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.00056 U	0.0020	0.00056	mg/l	
10061-01-5	cis-1,3-Dichloropropene	0.00048 U	0.0020	0.00048	mg/l	
541-73-1	m-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	0.00069 U	0.0020	0.00069	mg/l	
106-46-7	p-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1633	<b>Date Sampled:</b>	02/22/11
<b>Lab Sample ID:</b>	T69660-3	<b>Date Received:</b>	02/23/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	Colleyville		

## VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	0.00045 U	0.0020	0.00045	mg/l	
10061-02-6	trans-1,3-Dichloropropene	0.00068 U	0.0020	0.00068	mg/l	
100-41-4	Ethylbenzene	0.00055 U	0.0020	0.00055	mg/l	
591-78-6	2-Hexanone	0.0032 U	0.010	0.0032	mg/l	
87-68-3	Hexachlorobutadiene	0.0013 U	0.0020	0.0013	mg/l	
98-82-8	Isopropylbenzene	0.00051 U	0.0020	0.00051	mg/l	
99-87-6	p-Isopropyltoluene	0.00065 U	0.0020	0.00065	mg/l	
108-10-1	4-Methyl-2-pentanone	0.0099 U	0.010	0.0099	mg/l	
74-83-9	Methyl bromide	0.00094 U	0.0020	0.00094	mg/l	
74-87-3	Methyl chloride	0.00084 U	0.0020	0.00084	mg/l	
74-95-3	Methylene bromide	0.00065 U	0.0020	0.00065	mg/l	
75-09-2	Methylene chloride	0.00041 U	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	0.0039 U	0.010	0.0039	mg/l	
1634-04-4	Methyl Tert Butyl Ether	0.00073 U	0.0020	0.00073	mg/l	
91-20-3	Naphthalene	0.00065 U	0.0050	0.00065	mg/l	
103-65-1	n-Propylbenzene	0.00057 U	0.0020	0.00057	mg/l	
100-42-5	Styrene	0.00056 U	0.0020	0.00056	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.00080 U	0.0020	0.00080	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00062 U	0.0020	0.00062	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.0012 U	0.0020	0.0012	mg/l	
79-00-5	1,1,2-Trichloroethane	0.00098 U	0.0020	0.00098	mg/l	
87-61-6	1,2,3-Trichlorobenzene	0.0011 U	0.0020	0.0011	mg/l	
96-18-4	1,2,3-Trichloropropane	0.0013 U	0.0020	0.0013	mg/l	
120-82-1	1,2,4-Trichlorobenzene	0.00082 U	0.0020	0.00082	mg/l	
95-63-6	1,2,4-Trimethylbenzene	0.00065 U	0.0020	0.00065	mg/l	
108-67-8	1,3,5-Trimethylbenzene	0.00070 U	0.0020	0.00070	mg/l	
127-18-4	Tetrachloroethylene	0.00091 U	0.0020	0.00091	mg/l	
108-88-3	Toluene	0.00043 U	0.0020	0.00043	mg/l	
79-01-6	Trichloroethylene	0.00052 U	0.0020	0.00052	mg/l	
75-69-4	Trichlorofluoromethane	0.0012 U	0.0020	0.0012	mg/l	
75-01-4	Vinyl chloride	0.0010 U	0.0020	0.0010	mg/l	
1330-20-7	Xylene (total)	0.0017 U	0.0060	0.0017	mg/l	
	m,p-Xylene	0.0011 U	0.0040	0.0011	mg/l	
95-47-6	o-Xylene	0.00053 U	0.0020	0.00053	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-122%
17060-07-0	1,2-Dichloroethane-D4	91%		75-121%
2037-26-5	Toluene-D8	105%		87-119%

U = Not detected      SDL - Sample Detection Limit

MQL = Method Quantitation Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 1633		
<b>Lab Sample ID:</b> T69660-3		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		80-133%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 1633	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69660-3	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> RSKSOP-147/175	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FF10451.D	1	02/28/11	AFL	n/a	n/a	F:GFF438
Run #2							

CAS No.	Compound	Result	MQL	SDL	Units	Q
74-82-8	Methane	0.00139	0.00050	0.00016	mg/l	
74-84-0	Ethane	0.00032 U	0.0010	0.00032	mg/l	
74-85-1	Ethene	0.00043 U	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

33

<b>Client Sample ID:</b> 1633	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69660-3	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> TNRCC 1005 TX1005	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL049842.D	1	02/24/11	EM	02/24/11	OP17572	GLB727
Run #2							

Run #	Initial Volume	Final Volume
Run #1	30.5 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	0.58 U	2.5	0.58	mg/l	
	TPH (> C12-C28)	0.89 U	2.5	0.89	mg/l	
	TPH (> C28-C35)	0.89 U	2.5	0.89	mg/l	
	TPH (C6-C35)	0.58 U	2.5	0.58	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	103%		70-130%
98-08-8	aaa-Trifluorotoluene	82%		70-130%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 1633	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69660-3	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	0.0309 B	0.20	0.0034	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Sodium	32.0	5.0	0.10	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Strontium	0.428	0.010	0.00040	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA5512

(2) Prep QC Batch: MP14056

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Report of Analysis

<b>Client Sample ID:</b> 1633	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69660-3	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Chloride	40.7	1.0	0.38	mg/l	1	03/02/11	SS	SM 4500 CL C
Solids, Total Dissolved	368	10	2.6	mg/l	1	02/24/11	BG	SM 2540C
pH	7.93			su	1	02/23/11 10:44	LA	SM 4500H+ B/9040

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Misc. Forms

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### Custody Documents and Other Forms

---

Includes the following where applicable:

- Chain of Custody
- LRC Form

10165 Harwin Dr, Ste 150 Houston, TX 77036  
TEL: 713-271-4700 FAX: 713-271-4770  
www.accutest.com

FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
Accutest Quote # \_\_\_\_\_ Accutest Job # **T69660**

Client / Reporting Information		Project Information				Requested Analyses												Matrix Codes		
Company Name: <b>Kleinfelder</b>		Project Name: <b>Colleyville</b>				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TK1005 (TPH)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">8260 IS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">200.17 Be. Na. St</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">KSK 175 (Methane, Ethane, Ethane)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SM4500 (pH, TDS, CHL)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Ethylene Glycol 8260</div> </div>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank		
Street Address: <b>7805 Mesquite Bend</b>		Street: <b>Colleyville</b>																		
City: <b>Irving TX</b>		City: _____ State: _____																		
Project Contact: <b>Kyle Mirars</b>		Project # _____ Street Address _____																		
Phone # _____ Fax # _____		Client Purchase Order # _____ City _____ State _____ Zip _____																		
Sampler(s) Name(s): <b>Kyle Mirars</b>		Project Manager _____ Attention: _____																		
Accutest Sample # _____		Collection				Number of preserved Bottles												LAB USE ONLY		
Field ID / Point of Collection		Date	Time	Sampled By	Matrix	# of bottles	HCl	NH <sub>4</sub> OH	ZnAcOH	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>2</sub>	DI Water	MEDI	TSP	NaHSO <sub>4</sub>	ENIGRE	OTHER		
1 74417		2-22-11	830	KM	Water	14	X			X	X									
2 17		2-22-11	1020	KM	Water	14	X			X	X									
3 1633		2-22-11	1115	KM	Water	14	X			X	X									
N/A																				

Turnaround Time (Business days)		Data Deliverable Information				Comments / Special Instructions
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TIA data available VIA Lablink</small>		Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> TRRP <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> EDD Format <input type="checkbox"/> FULT1 (Level 3+4) <input type="checkbox"/> Other _____ <input type="checkbox"/> REDT1 (Level 3+4) <input type="checkbox"/> Commercial "C" <small>Commercial "A" = Results Only          Commercial "B" = Results + QC Summary          Commercial "C" = Results + QC &amp; Surrogate Summary</small>				

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: <b>Kyle Mirars</b>	Date Time: <b>2-22-11 1630</b>	Received By: <b>1</b>	Relinquished By: <b>FedEx</b>	Date Time: <b>0800</b>	Received By: <b>ALGS James Nudd</b>
Relinquished by Sampler: _____	Date Time: _____	Received By: <b>3</b>	Relinquished By: _____	Date Time: <b>2/23/11</b>	Received By: _____
Relinquished by: _____	Date Time: _____	Received By: <b>5</b>	Custody Seal # _____	<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not Intact <input type="checkbox"/>	<input checked="" type="checkbox"/> On Ice    Cooler Temp. <b>2.4°C</b>

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# SAMPLE INSPECTION FORM

Accutest Job Number: T69660 Client: Kleinfelder Date/Time Received: 2/23/11 0800  
 # of Coolers Received: 1 Thermometer #: # 110 Temperature Adjustment Factor: -0.5°C

Cooler Temperatures (initial/adjusted): #1: 2.9/2.4°C #2: \_\_\_\_\_ #3: \_\_\_\_\_ #4: \_\_\_\_\_ #5: \_\_\_\_\_  
 #6: \_\_\_\_\_ #7: \_\_\_\_\_ #8: \_\_\_\_\_ #9: \_\_\_\_\_ #10: \_\_\_\_\_ #11: \_\_\_\_\_ #12: \_\_\_\_\_

Method of Delivery: FEDEX UPS Delivery Greyhound Other

**COOLER INFORMATION**

- Custody seal missing or not intact
- Temperature criteria not met
- Wet ice received in cooler

**CHAIN OF CUSTODY**

- Chain of Custody not received
- Sample D/T unclear or missing
- Analyses unclear or missing
- COC not properly executed

**SAMPLE INFORMATION**

- Sample containers received broken
- VOC vials have headspace
- Sample labels missing or illegible
- ID on COC does not match label(s)
- D/T on COC does not match label(s)
- Sample/Bottles recvd but no analysis on COC
- Sample listed on COC, but not received
- Bottles missing for requested analysis
- Insufficient volume for analysis
- Sample received improperly preserved

**TRIP BLANK INFORMATION**

- Trip Blank on COC but not received
- Trip Blank received but not on COC
- Trip Blank not intact
- Received Water Trip Blank
- Received Soil TB

Number of Encores? \_\_\_\_\_  
 Number of 5035 kits? \_\_\_\_\_  
 Number of lab-filtered metals? \_\_\_\_\_

Summary of Discrepancies:

Accutest Trip Blank received, not listed on COC.

TECHNICIAN SIGNATURE/DATE: Daniel Andelfinger 2/23/11

INFORMATION AND SAMPLE LABELING VERIFIED BY: \_\_\_\_\_

**CORRECTIVE ACTIONS**

Client Representative Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Accutest Representative: \_\_\_\_\_ Via: Phone Email

Client Instructions: \_\_\_\_\_

i:\mwalker\forms\samplemanagement SM023 Revised 6/11/10

**SAMPLE RECEIPT LOG**

JOB #: T69660 DATE/TIME RECEIVED: 2/23/11 0800  
 CLIENT: Kleinfelder INITIALS: DBA

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	74417	2-22-11 830	W	1000ml	1	3C	① 2 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓	250ml	2	1M	1 2 ③ 4 5 6 7 8	② <2 >12
↓	↓	↓	↓	↓	40ml	3-5	1M	1 ② 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓		6-8	VR	1 ② 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓		9-11	SUB	1 ② 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓		12-14	SUB	1 ② 3 4 5 6 7 8	<2 >12
2	7		1020		1000ml	1	3C	① 2 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓	250ml	2	1M	1 2 ③ 4 5 6 7 8	② <2 >12
↓	↓	↓	↓	↓	40ml	3-5	1M	1 ③ 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓		6-8	VR	1 ② 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓		9-11	SUB	1 ③ 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓		12-14	SUB	1 ② 3 4 5 6 7 8	<2 >12
3	1633		1115		1000ml	1	3C	① 2 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓	250ml	2	1M	1 2 ③ 4 5 6 7 8	② <2 >12
↓	↓	↓	↓	↓	40ml	3-5	1M	1 ③ 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓		6-8	VR	1 ② 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓		9-11	SUB	1 ③ 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓		12-14	SUB	1 ② 3 4 5 6 7 8	<2 >12
4	TRIP BLANK		2-10-11 1600	WTB	40ml	1-2	VR	1 ② 3 4 5 6 7 8	<2 >12
<del>DBA</del>									<2 >12
<del>2/23/11</del>									<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NaOH 6: DI 7: MeOH 8: Other  
 LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer  
 Rev 8/13/01 ewp

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# Appendix A Laboratory Data Package Cover Page

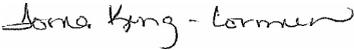
This data package is for Job No. T69660 and laboratory batch no(s): VZ3122, OP17572, MP14056, GN29005, GP11910 and GN28978 consist of

- This signature page, the laboratory review checklist, and the following reportable data:
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) The calculated RPD, and
  - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Report. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld.

**Check, if applicable:**  This laboratory meets an exception under 30 TAC&25.6 and was last inspection by  TCEQ or  \_\_\_\_\_ on Oct. 2008. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tonia King-Cormier		QA Manager	03/10/2011
Name (Printed)	Signature	Official Title (printed)	Date

<b>Appendix A (cont'd): Laboratory Review Checklist: Reportable Data</b>							
Laboratory Name: Accutest Laboratories Gulf Coast			LRC Date: 03/10/2011				
Project Name: Colleyville			Laboratory Job Number: T69660				
Reviewer Name: Tonia King-Cormier			Prep Batch Number(s): VZ3122,OP17572,MP14056,GN29005,GP11910 and GN28978				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
		<b>Chain-of-custody (C-O-C)</b>					
R1	OI	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	<b>Sample and quality control (QC) identification</b>					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	<b>Test reports</b>					
		Were all samples prepared and analyzed within holding times?		X			2
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	<b>Surrogate recovery data</b>					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	<b>Test reports/summary forms for blank samples</b>					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	<b>Laboratory control samples (LCS):</b>					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	<b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	<b>Analytical duplicate data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	<b>Method quantitation limits (MQLs):</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?			X		
R10	OI	<b>Other problems/anomalies</b>					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL minimize the matrix interference affects on the sample results?	X				
		Is the Laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

## Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: Accutest Laboratories Gulf Coast	LRC Date: 03/10/2011
Project Name: Colleyville	Laboratory Job Number: T69660
Reviewer Name: Tonia King-Cormier	Prep Batch Number(s): VZ3122,OP17572,MP14056,GN29005,GP11910 and GN28978

# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sub>3</sub>	NR <sup>4</sup>	ER <sup>5</sup>
S1	OI	<b>Initial calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	<b>Initial and continuing calibration verification (ICCV and CCV) and continuing calibration</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	<b>Mass spectral tuning:</b>					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	<b>Internal standards (IS):</b>					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	<b>Raw data (NELAC section 5.5.10)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	<b>Dual column confirmation</b>					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	<b>Tentatively identified compounds (TICs):</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	<b>Interference Check Sample (ICS) results:</b>					
		Were percent recoveries within method QC limits?			X		
S9	I	<b>Serial dilutions, post digestion spikes, and method of standard additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	<b>Method detection limit (MDL) studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	<b>Proficiency test reports:</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	<b>Compound/analyte identification procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of analyst competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/validation documentation for methods (NELAC Chap 5)</b>					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	<b>Laboratory standard operating procedures (SOPs):</b>					
		Are laboratory SOPs current and on file for each method performed?	X				

<b>Appendix A (cont'd): Laboratory Review Checklist: Exception Reports</b>	
Laboratory Name: Accutest Laboratories Gulf Coast	LRC Date: 03/10/2011
Project Name: Colleyville	Laboratory Job Number: T69660
Reviewer Name: Tonia King-Cormier	Prep Batch Number: VZ3122,OP17572,MP14056,GN29005,GP11910 and GN28978
DESCRIPTION	
1	For reporting purposes, the MQL is defined in the report as the RL. The unadjusted MQL/RL is reported in the method blank. The SDL/MDL is defined in the report as the MDL.
2	All anomalies are discussed in the case narrative

1. Items identified by the letter “R” must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter “S” should be retained and made available upon request for the appropriate retention period.
2. O= organic analyses; I= inorganic analyses (and general chemistry, when applicable);
3. NA = Not Applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

## GC/MS Volatiles

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5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3122-MB	Z014368.D	1	02/23/11	NM	n/a	n/a	VZ3122

The QC reported here applies to the following samples:

Method: SW846 8260B

T69660-1, T69660-2, T69660-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	4.7	ug/l	
71-43-2	Benzene	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.82	ug/l	
74-97-5	Bromochloromethane	ND	2.0	1.6	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.49	ug/l	
75-25-2	Bromoform	ND	2.0	1.4	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.63	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.52	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	1.3	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.56	ug/l	
75-00-3	Chloroethane	ND	2.0	0.92	ug/l	
67-66-3	Chloroform	ND	2.0	0.64	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.70	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.56	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.66	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.52	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.9	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.55	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.62	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.62	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.54	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.62	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.61	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.1	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.56	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.48	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.69	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.68	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
591-78-6	2-Hexanone	ND	10	3.2	ug/l	

## Method Blank Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3122-MB	Z014368.D	1	02/23/11	NM	n/a	n/a	VZ3122

The QC reported here applies to the following samples:

Method: SW846 8260B

T69660-1, T69660-2, T69660-3

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	2.0	1.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.65	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	9.9	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.94	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.84	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.65	ug/l	
75-09-2	Methylene chloride	ND	5.0	0.41	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	3.9	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.73	ug/l	
91-20-3	Naphthalene	ND	5.0	0.65	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.57	ug/l	
100-42-5	Styrene	ND	2.0	0.56	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.80	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.62	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.98	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.1	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.82	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.65	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.70	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.91	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.52	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	1.2	ug/l	
75-01-4	Vinyl chloride	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	
	m,p-Xylene	ND	4.0	1.1	ug/l	
95-47-6	o-Xylene	ND	2.0	0.53	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103% 79-122%
17060-07-0	1,2-Dichloroethane-D4	98% 75-121%

## Method Blank Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3122-MB	Z014368.D	1	02/23/11	NM	n/a	n/a	VZ3122

The QC reported here applies to the following samples:

Method: SW846 8260B

T69660-1, T69660-2, T69660-3

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	106% 87-119%
460-00-4	4-Bromofluorobenzene	89% 80-133%

# Blank Spike Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3122-BS	Z014366.D	1	02/23/11	NM	n/a	n/a	VZ3122

The QC reported here applies to the following samples:

Method: SW846 8260B

T69660-1, T69660-2, T69660-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	117	94	62-124
71-43-2	Benzene	25	25.4	102	76-118
108-86-1	Bromobenzene	25	21.3	85	72-110
74-97-5	Bromochloromethane	25	25.2	101	69-110
75-27-4	Bromodichloromethane	25	24.9	100	68-107
75-25-2	Bromoform	25	21.2	85	64-103
104-51-8	n-Butylbenzene	25	22.2	89	74-114
135-98-8	sec-Butylbenzene	25	22.5	90	76-118
98-06-6	tert-Butylbenzene	25	22.7	91	72-116
108-90-7	Chlorobenzene	25	23.8	95	74-111
75-00-3	Chloroethane	25	28.2	113	75-135
67-66-3	Chloroform	25	24.6	98	75-117
95-49-8	o-Chlorotoluene	25	21.0	84	74-113
106-43-4	p-Chlorotoluene	25	22.0	88	72-114
75-15-0	Carbon disulfide	25	21.5	86	57-126
56-23-5	Carbon tetrachloride	25	28.4	114	75-125
75-34-3	1,1-Dichloroethane	25	25.2	101	76-121
75-35-4	1,1-Dichloroethylene	25	28.8	115	71-128
563-58-6	1,1-Dichloropropene	25	27.5	110	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	17.4	70	55-121
106-93-4	1,2-Dibromoethane	25	20.9	84	69-106
107-06-2	1,2-Dichloroethane	25	24.5	98	70-111
78-87-5	1,2-Dichloropropane	25	24.8	99	71-113
142-28-9	1,3-Dichloropropane	25	20.8	83	69-106
594-20-7	2,2-Dichloropropane	25	26.8	107	68-130
124-48-1	Dibromochloromethane	25	22.1	88	69-104
75-71-8	Dichlorodifluoromethane	25	27.7	111	28-120
156-59-2	cis-1,2-Dichloroethylene	25	26.6	106	68-113
10061-01-5	cis-1,3-Dichloropropene	25	24.8	99	71-111
541-73-1	m-Dichlorobenzene	25	22.4	90	74-110
95-50-1	o-Dichlorobenzene	25	22.1	88	72-108
106-46-7	p-Dichlorobenzene	25	22.4	90	74-110
156-60-5	trans-1,2-Dichloroethylene	25	27.5	110	70-125
10061-02-6	trans-1,3-Dichloropropene	25	23.0	92	75-111
100-41-4	Ethylbenzene	25	23.3	93	75-112
591-78-6	2-Hexanone	125	92.4	74	60-113

# Blank Spike Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3122-BS	Z014366.D	1	02/23/11	NM	n/a	n/a	VZ3122

The QC reported here applies to the following samples:

Method: SW846 8260B

T69660-1, T69660-2, T69660-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	24.2	97	72-123
98-82-8	Isopropylbenzene	25	24.8	99	75-123
99-87-6	p-Isopropyltoluene	25	22.7	91	76-116
108-10-1	4-Methyl-2-pentanone	125	110	88	63-115
74-83-9	Methyl bromide	25	26.6	106	59-132
74-87-3	Methyl chloride	25	25.6	102	56-150
74-95-3	Methylene bromide	25	24.5	98	68-114
75-09-2	Methylene chloride	25	22.3	89	70-113
78-93-3	Methyl ethyl ketone	125	108	86	62-117
1634-04-4	Methyl Tert Butyl Ether	25	24.2	97	65-113
91-20-3	Naphthalene	25	20.0	80	53-127
103-65-1	n-Propylbenzene	25	21.8	87	74-115
100-42-5	Styrene	25	23.3	93	66-100
630-20-6	1,1,1,2-Tetrachloroethane	25	23.4	94	72-108
71-55-6	1,1,1-Trichloroethane	25	27.0	108	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	18.7	75	67-110
79-00-5	1,1,2-Trichloroethane	25	20.7	83	69-107
87-61-6	1,2,3-Trichlorobenzene	25	21.4	86	51-128
96-18-4	1,2,3-Trichloropropane	25	17.4	70	55-116
120-82-1	1,2,4-Trichlorobenzene	25	22.1	88	63-114
95-63-6	1,2,4-Trimethylbenzene	25	21.6	86	73-111
108-67-8	1,3,5-Trimethylbenzene	25	24.8	99	74-115
127-18-4	Tetrachloroethylene	25	25.3	101	77-120
108-88-3	Toluene	25	23.1	92	77-114
79-01-6	Trichloroethylene	25	26.4	106	74-117
75-69-4	Trichlorofluoromethane	25	30.7	123	64-132
75-01-4	Vinyl chloride	25	26.8	107	64-121
1330-20-7	Xylene (total)	75	69.5	93	75-111
	m,p-Xylene	50	46.4	93	75-112
95-47-6	o-Xylene	25	23.1	92	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	79-122%
17060-07-0	1,2-Dichloroethane-D4	97%	75-121%

5.2.1  
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# Blank Spike Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3122-BS	Z014366.D	1	02/23/11	NM	n/a	n/a	VZ3122

The QC reported here applies to the following samples:

Method: SW846 8260B

T69660-1, T69660-2, T69660-3

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	102%	87-119%
460-00-4	4-Bromofluorobenzene	88%	80-133%

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69419-5MS	Z014370.D	200	02/23/11	NM	n/a	n/a	VZ3122
T69419-5MSD	Z014371.D	200	02/23/11	NM	n/a	n/a	VZ3122
T69419-5	Z014369.D	200	02/23/11	NM	n/a	n/a	VZ3122

The QC reported here applies to the following samples:

Method: SW846 8260B

T69660-1, T69660-2, T69660-3

CAS No.	Compound	T69419-5 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	25000	23000	92	22500	90	2	62-124/21
71-43-2	Benzene	18700	5000	22500	76	21400	54* a	5	76-118/16
108-86-1	Bromobenzene	ND	5000	4350	87	4220	84	3	72-110/12
74-97-5	Bromochloromethane	ND	5000	5320	106	5170	103	3	69-110/12
75-27-4	Bromodichloromethane	ND	5000	5220	104	5110	102	2	68-107/12
75-25-2	Bromoform	ND	5000	4280	86	4080	82	5	64-103/14
104-51-8	n-Butylbenzene	ND	5000	4650	93	4320	86	7	74-114/12
135-98-8	sec-Butylbenzene	ND	5000	4520	90	4370	87	3	76-118/12
98-06-6	tert-Butylbenzene	ND	5000	4540	91	4400	88	3	72-116/14
108-90-7	Chlorobenzene	ND	5000	4820	96	4620	92	4	74-111/11
75-00-3	Chloroethane	ND	5000	5490	110	5400	108	2	75-135/15
67-66-3	Chloroform	ND	5000	5120	102	4950	99	3	75-117/12
95-49-8	o-Chlorotoluene	ND	5000	4390	88	4260	85	3	74-113/12
106-43-4	p-Chlorotoluene	ND	5000	4540	91	4400	88	3	72-114/12
75-15-0	Carbon disulfide	ND	5000	4520	90	4250	85	6	57-126/13
56-23-5	Carbon tetrachloride	ND	5000	5880	118	5530	111	6	75-125/12
75-34-3	1,1-Dichloroethane	ND	5000	5130	103	4890	98	5	76-121/13
75-35-4	1,1-Dichloroethylene	ND	5000	5920	118	5630	113	5	71-128/19
563-58-6	1,1-Dichloropropene	ND	5000	5660	113	5400	108	5	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	ND	5000	3630	73	3440	69	5	55-121/33
106-93-4	1,2-Dibromoethane	ND	5000	4140	83	4140	83	0	69-106/13
107-06-2	1,2-Dichloroethane	ND	5000	5210	104	4940	99	5	70-111/14
78-87-5	1,2-Dichloropropane	ND	5000	4950	99	4850	97	2	71-113/12
142-28-9	1,3-Dichloropropane	ND	5000	4050	81	4020	80	1	69-106/12
594-20-7	2,2-Dichloropropane	ND	5000	5940	119	5840	117	2	68-130/14
124-48-1	Dibromochloromethane	ND	5000	4370	87	4340	87	1	69-104/12
75-71-8	Dichlorodifluoromethane	ND	5000	5810	116	5150	103	12	28-120/21
156-59-2	cis-1,2-Dichloroethylene	ND	5000	5480	110	5280	106	4	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND	5000	5030	101	4990	100	1	71-111/12
541-73-1	m-Dichlorobenzene	ND	5000	4540	91	4440	89	2	74-110/12
95-50-1	o-Dichlorobenzene	ND	5000	4540	91	4460	89	2	72-108/12
106-46-7	p-Dichlorobenzene	ND	5000	4550	91	4440	89	2	74-110/12
156-60-5	trans-1,2-Dichloroethylene	ND	5000	5570	111	5360	107	4	70-125/14
10061-02-6	trans-1,3-Dichloropropene	ND	5000	4530	91	4420	88	2	75-111/12
100-41-4	Ethylbenzene	2120	5000	6620	90	6500	88	2	75-112/12
591-78-6	2-Hexanone	ND	25000	18300	73	18100	72	1	60-113/18

5.3.1  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69419-5MS	Z014370.D	200	02/23/11	NM	n/a	n/a	VZ3122
T69419-5MSD	Z014371.D	200	02/23/11	NM	n/a	n/a	VZ3122
T69419-5	Z014369.D	200	02/23/11	NM	n/a	n/a	VZ3122

The QC reported here applies to the following samples:

Method: SW846 8260B

T69660-1, T69660-2, T69660-3

CAS No.	Compound	T69419-5 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND		5000	5030	101	4970	99	1	72-123/17
98-82-8	Isopropylbenzene	ND		5000	5200	104	5040	101	3	75-123/12
99-87-6	p-Isopropyltoluene	ND		5000	4520	90	4330	87	4	76-116/12
108-10-1	4-Methyl-2-pentanone	ND		25000	23100	92	21900	88	5	63-115/21
74-83-9	Methyl bromide	ND		5000	5120	102	4930	99	4	59-132/15
74-87-3	Methyl chloride	ND		5000	5110	102	4990	100	2	56-150/17
74-95-3	Methylene bromide	ND		5000	4940	99	4770	95	4	68-114/13
75-09-2	Methylene chloride	ND		5000	4690	94	4450	89	5	70-113/13
78-93-3	Methyl ethyl ketone	ND		25000	22500	90	21200	85	6	62-117/21
1634-04-4	Methyl Tert Butyl Ether	ND		5000	4850	97	4660	93	4	65-113/13
91-20-3	Naphthalene	154	J	5000	4300	83	4190	81	3	53-127/34
103-65-1	n-Propylbenzene	155	J	5000	4570	88	4410	85	4	74-115/12
100-42-5	Styrene	ND		5000	4620	92	4570	91	1	66-100/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		5000	4690	94	4510	90	4	72-108/11
71-55-6	1,1,1-Trichloroethane	ND		5000	5620	112	5330	107	5	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		5000	3910	78	3770	75	4	67-110/20
79-00-5	1,1,2-Trichloroethane	ND		5000	4180	84	4100	82	2	69-107/14
87-61-6	1,2,3-Trichlorobenzene	ND		5000	4360	87	4280	86	2	51-128/31
96-18-4	1,2,3-Trichloropropane	ND		5000	3670	73	3570	71	3	55-116/27
120-82-1	1,2,4-Trichlorobenzene	ND		5000	4560	91	4350	87	5	63-114/21
95-63-6	1,2,4-Trimethylbenzene	1020		5000	5420	88	5200	84	4	73-111/13
108-67-8	1,3,5-Trimethylbenzene	ND		5000	5200	104	5040	101	3	74-115/12
127-18-4	Tetrachloroethylene	ND		5000	5120	102	4940	99	4	77-120/13
108-88-3	Toluene	16900		5000	20300	68* a	19800	58* a	2	77-114/12
79-01-6	Trichloroethylene	ND		5000	5560	111	5230	105	6	74-117/12
75-69-4	Trichlorofluoromethane	ND		5000	6130	123	5460	109	12	64-132/18
75-01-4	Vinyl chloride	ND		5000	5380	108	5140	103	5	64-121/19
1330-20-7	Xylene (total)	8700		15000	22100	89	21500	85	3	75-111/12
	m,p-Xylene	5870		10000	14800	89	14400	85	3	75-112/12
95-47-6	o-Xylene	2830		5000	7270	89	7070	85	3	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T69419-5	Limits
1868-53-7	Dibromofluoromethane	100%	97%	104%	79-122%
17060-07-0	1,2-Dichloroethane-D4	99%	97%	98%	75-121%

5.3.1  
 5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69419-5MS	Z014370.D	200	02/23/11	NM	n/a	n/a	VZ3122
T69419-5MSD	Z014371.D	200	02/23/11	NM	n/a	n/a	VZ3122
T69419-5	Z014369.D	200	02/23/11	NM	n/a	n/a	VZ3122

The QC reported here applies to the following samples:

Method: SW846 8260B

T69660-1, T69660-2, T69660-3

CAS No.	Surrogate Recoveries	MS	MSD	T69419-5	Limits
2037-26-5	Toluene-D8	101%	101%	109%	87-119%
460-00-4	4-Bromofluorobenzene	89%	87%	88%	80-133%

(a) Outside control limits due to high level in sample relative to spike amount.

## GC Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP17572-MB	LL049826.D	1	02/24/11	EM	02/24/11	OP17572	GLB727

The QC reported here applies to the following samples:

Method: TNRCC 1005

T69660-1, T69660-2, T69660-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	2.5	0.59	mg/l	
	TPH (> C12-C28)	ND	2.5	0.90	mg/l	
	TPH (> C28-C35)	ND	2.5	0.90	mg/l	
	TPH (C6-C35)	ND	2.5	0.59	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	98%	70-130%
98-08-8	aaa-Trifluorotoluene	85%	70-130%

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP17572-BS	LL049827.D	1	02/24/11	EM	02/24/11	OP17572	GLF727
OP17572-BSD	LL049828.D	1	02/24/11	EM	02/24/11	OP17572	GLB727

The QC reported here applies to the following samples:

Method: TNRCC 1005

T69660-1, T69660-2, T69660-3

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	48.9	47.0	96	42.1	86	11	75-125/25
	TPH (> C12-C28)	48.9	56.3	115	54.3	111	4	75-125/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	105%	103%	70-130%
98-08-8	aaa-Trifluorotoluene	95%	96%	70-130%

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69660  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP17572-MS	LL049829.D	1	02/24/11	EM	02/24/11	OP17572	GLF727
OP17572-MSD	LL049830.D	1	02/24/11	EM	02/24/11	OP17572	GLB727
T69616-7	LL049853.D	1	02/24/11	EM	02/24/11	OP17572	GLF727

The QC reported here applies to the following samples:

Method: TNRCC 1005

T69660-1, T69660-2, T69660-3

CAS No.	Compound	T69616-7 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	ND	49.6	47.0	95	43.5	88	8	75-125/25
	TPH (> C12-C28)	ND	49.6	56.7	114	52.5	106	8	75-125/25

CAS No.	Surrogate Recoveries	MS	MSD	T69616-7	Limits
84-15-1	o-Terphenyl	107%	98%	107%	70-130%
98-08-8	aaa-Trifluorotoluene	95%	93%	98%	70-130%

6.3.1  
6

## Metals Analysis

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: T69660  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

QC Batch ID: MP14056  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 02/24/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	12		
Antimony	5.0	1	1		
Arsenic	5.0	1.7	1		
Barium	200	.97	3.4	0.30	<200
Beryllium	5.0	.056	.16		
Boron	100	1.4	7.8		
Cadmium	4.0	.11	.09		
Calcium	5000	7.4	25		
Chromium	10	.23	.27		
Cobalt	50	.15	.22		
Copper	25	1.1	5.9		
Iron	100	1.1	23		
Lead	3.0	1	1.8		
Lithium	300	2	2		
Magnesium	5000	7.7	7.9		
Manganese	15	.054	1.9		
Molybdenum	10	.39	.2		
Nickel	40	.69	1.4		
Potassium	5000	39	45		
Selenium	5.0	1.5	.98		
Silver	10	1.2	.24		
Sodium	5000	9.2	100	9.7	<5000
Strontium	10	.061	.4	0.12	<10
Thallium	10	.67	1.2		
Tin	20	.69	2.8		
Titanium	20	.29	.3		
Vanadium	50	.3	.3		
Zinc	20	.51	3.5		

Associated samples MP14056: T69660-1, T69660-2, T69660-3

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

7.1.1  
7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T69660  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14056  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 02/24/11 02/24/11

Metal	T69622-1		QC	T69622-1		Spikelot	QC		
	Original	DUP	RPD	Limits	Original	MS	MPTW4	% Rec	Limits
Aluminum	anr								
Antimony									
Arsenic									
Barium	114	114	0.0	0-20	114	529	400	103.8	80-120
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead									
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium	144000	146000	1.4	0-20	144000	189000	50000	90.0	80-120
Strontium	215	217	0.9	0-20	215	624	200	102.1	80-120
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP14056: T69660-1, T69660-2, T69660-3

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.12  
 7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T69660  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14056  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 02/24/11

Metal	T69622-1 Original MSD		SpikeLot MPTW4 % Rec		MSD RPD	QC Limit
Aluminum	anr					
Antimony						
Arsenic						
Barium	114	523	400	102.3	1.1	20
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron						
Lead						
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver						
Sodium	144000	192000	50000	96.0	1.6	20
Strontium	215	627	200	103.0	0.5	20
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP14056: T69660-1, T69660-2, T69660-3

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.1.2  
7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T69660  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14056  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 02/24/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum	anr			
Antimony				
Arsenic				
Barium	413	400	103.3	80-120
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium	52600	50000	105.2	80-120
Strontium	416	200	104.0	80-120
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP14056: T69660-1, T69660-2, T69660-3

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.1.3  
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: T69660  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14056  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 02/24/11

Metal	T69622-1 Original SDL 1:5		%DIF	QC Limits
Aluminum	anr			
Antimony				
Arsenic				
Barium	114	113	1.3	0-10
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium	144000	148000	3.0	0-10
Strontium	215	213	0.7	0-10
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP14056: T69660-1, T69660-2, T69660-3

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.1.4  
7

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T69660  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP11910/GN29150	1.0	0.0	mg/l	1000	969	96.9	92-107%
Solids, Total Dissolved	GN29005	10	0.0	mg/l	500	504	100.8	80-120%

Associated Samples:

Batch GN29005: T69660-1, T69660-2, T69660-3

Batch GP11910: T69660-1, T69660-2, T69660-3

(\*) Outside of QC limits

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T69660  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP11910/GN29150	T69627-3	mg/l	1.5	1.5	0.0	0-5%
Solids, Total Dissolved	GN29005	T69283-2	mg/l	879	864	1.7	0-5%
pH	GN28978	T69617-1	su	7.51	7.47	0.5	0-6.8%

Associated Samples:

Batch GN28978: T69660-1, T69660-2, T69660-3

Batch GN29005: T69660-1, T69660-2, T69660-3

Batch GP11910: T69660-1, T69660-2, T69660-3

(\*) Outside of QC limits

8.2

8

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T69660  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP11910/GN29150	T69627-3	mg/l	1.5	10	11.4	99.0	81-119%

Associated Samples:

Batch GP11910: T69660-1, T69660-2, T69660-3

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



Misc. Forms

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Custody Documents and Other Forms

(Accutest Laboratories Southeast, Inc.)

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Includes the following where applicable:

- Chain of Custody



# SUBCONTRACT COC

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #	Bottle Order C#
Accutest Quote #	Accutest Job #

**T69660**

Client Information		Subcontract Information		Requested Analyses				Matrix Codes
Company Name Accutest Gulf Coast		Subcontract Laboratory ACCUTEST FLORIDA		Methane, Ethane, Ethene (YRSK147/DOME)				DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge OF - Oil LIQ - Liquid SOL - Other Solid
Project Contact Sylvia Garza		Laboratory Contact						
Email sylvia@accutest.com		Email						
Address 10165 Harwin Dr, Suite 150		Sample Receiving Address						
City Houston	State TX	Zip 77036	Phone No. 713-271-4700					

Accutest Sample Number	Collection			Number of preserved bottles										LAB USE ONLY
	Date	Time	Matrix	# of bottles	HD	NADH	INDS	HEXDA	BANON	TSP	NOE	OTHER		
T69660-1	2/22/2011			3	X								X	
T69660-2	2/22/2011			3	X								X	
T69660-3	2/22/2011			3	X								X	

Turnaround Time (Business days)	Approved By/ Date:	Data Deliverable Information	Comments / Remarks
<input type="checkbox"/> STANDARD <input type="checkbox"/> 7 Day <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> Other	MAR 2nd	<input type="checkbox"/> Commercial "A" <input checked="" type="checkbox"/> Commercial "B" <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> Full Data Package	<input checked="" type="checkbox"/> TRRP-13 <input type="checkbox"/> EDD Format <input type="checkbox"/> Other NAHK

Real time analytical data available via Lablink

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by: [Signature]	Date Time: 2/22/11	Received By: [Signature]	Received By: [Signature]
Relinquished by: [Signature]	Date Time: 2/22/11	Received By: [Signature]	Received By: [Signature]
Relinquished by: [Signature]	Date Time: 2/22/11	Received By: [Signature]	Received By: [Signature]
Relinquished by: [Signature]	Date Time: 2/22/11	Received By: [Signature]	Received By: [Signature]
Relinquished by: [Signature]	Date Time: 2/22/11	Received By: [Signature]	Received By: [Signature]

9.1  
9

**T69660: Chain of Custody**  
**Page 1 of 2**  
**Accutest Laboratories Southeast, Inc.**

**ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION**

ACCUTEST'S JOB NUMBER: T69660 CLIENT: ALGC PROJECT: T69660  
 DATE/TIME RECEIVED: 02-25-11 1415 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 7967 9653 0269

**COOLER INFORMATION**

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET
- WET ICE PRESENT

**TRIP BLANK INFORMATION**

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES? 25-GRAM \_\_\_\_\_ 5-GRAM \_\_\_\_\_  
 NUMBER OF 5035 FIELD KITS? \_\_\_\_\_  
 NUMBER OF LAB FILTERED METALS? \_\_\_\_\_

**TEMPERATURE INFORMATION**

- IR THERM ID 1 CORR. FACTOR 1.2
- OBSERVED TEMPS: 28
- CORRECTED TEMPS: 26

**SAMPLE INFORMATION**

- SAMPLE LABELS PRESENT ON ALL BOTTLES
- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- % SOLIDS JAR NOT RECEIVED
- 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS: "water samples"

TECHNICIAN SIGNATURE/DATE ET 02-25-11 REVIEWER SIGNATURE/DATE [Signature] 02/25/11

NF 12/10

receipt confirmation 122910.xls

9.1  
9

## GC Volatiles

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### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** T69660  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF438-MB	FF10436.D	1	02/28/11	WV	n/a	n/a	GFF438

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69660-1, T69660-2, T69660-3

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

10.1.1  
10

# Blank Spike Summary

**Job Number:** T69660  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF438-BS	FF10437.D	1	02/28/11	WV	n/a	n/a	GFF438

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69660-1, T69660-2, T69660-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	80.8	75	54-149
74-84-0	Ethane	219	166	76	57-143
74-85-1	Ethene	290	218	75	57-143

10.2.1  
10

# Matrix Spike Summary

**Job Number:** T69660  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69627-1MS	FF10442.D	1	02/28/11	WV	n/a	n/a	GFF438
T69627-1	FF10441.D	1	02/28/11	WV	n/a	n/a	GFF438

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69660-1, T69660-2, T69660-3

CAS No.	Compound	T69627-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	4.21	108	109	97	54-149
74-84-0	Ethane	1.0 U	219	215	98	57-143
74-85-1	Ethene	1.0 U	290	283	98	57-143

# Duplicate Summary

**Job Number:** T69660  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F80150-4DUP	FF10448.D	5	02/28/11	WV	n/a	n/a	GFF438
F80150-4	FF10438.D	5	02/28/11	WV	n/a	n/a	GFF438

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69660-1, T69660-2, T69660-3

CAS No.	Compound	F80150-4 ug/l	DUP Q ug/l	Q RPD	Limits
74-82-8	Methane	2540	2310	9	24
74-84-0	Ethane	5.0 U	ND	nc	23
74-85-1	Ethene	5.0 U	ND	nc	10

10.4.1  
10

Technical Report for

Kleinfelder

Colleyville

Accutest Job Number: T69627

Sampling Date: 02/22/11

Report to:

Kleinfelder  
7805 Mesquite Bend Drive Suite 100  
Irving, TX 75063  
KMiears@kleinfelder.com

ATTN: Kyle Miears

Total number of pages in report: **72**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



Paul Canevaro  
Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103)

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Test results relate only to samples analyzed.

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### Sample Summary

Kleinfelder

Job No: T69627

Colleyville

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
T69627-1	02/22/11	09:45	02/23/11	AQ	Ground Water	9
T69627-2	02/22/11	15:00	02/23/11	AQ	Ground Water	165321
T69627-3	02/22/11	15:55	02/23/11	AQ	Ground Water	6
T69627-4	02/22/11	00:00	02/23/11	AQ	Trip Blank Water	TRIP BLANK

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Kleinfelder

**Job No** T69627

**Site:** Colleyville

**Report Date** 3/10/2011 9:05:06 AM

3 Sample(s) were collected on 02/22/2011 and were received at Accutest on 02/23/2011 properly preserved, at 2.5 Deg. C and intact. These Samples received an Accutest job number of T69627. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

<b>Matrix</b> AQ	<b>Batch ID:</b> VF4161
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69443-11MS, T69443-11MSD were used as the QC samples indicated.

### Volatiles by GC By Method RSKSOP-147/175

<b>Matrix</b> AQ	<b>Batch ID:</b> F:GFF438
------------------	---------------------------

- T69627-2: Analysis performed at Accutest Laboratories, Orlando, FL.
- T69627-1: Analysis performed at Accutest Laboratories, Orlando, FL.
- T69627-3: Analysis performed at Accutest Laboratories, Orlando, FL.

### Extractables by GC By Method TNRCC 1005

<b>Matrix</b> AQ	<b>Batch ID:</b> OP17572
------------------	--------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69616-7MS, T69616-7MSD were used as the QC samples indicated.

### Metals By Method SW846 6010B

<b>Matrix</b> AQ	<b>Batch ID:</b> MP14056
------------------	--------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69622-1DUP, T69622-1MS, T69622-1MSD, T69622-1SDL were used as the QC samples for metals.

### Wet Chemistry By Method SM 2540C

<b>Matrix</b> AQ	<b>Batch ID:</b> GN29005
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69283-2DUP were used as the QC samples for Solids, Total Dissolved.

## Wet Chemistry By Method SM 4500 CL C

**Matrix** AQ

**Batch ID:** GP11910

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69627-3DUP, T69627-3MS were used as the QC samples for Chloride.

## Wet Chemistry By Method SM 4500H+B/9040

**Matrix** AQ

**Batch ID:** GN28978

- Sample(s) T69617-1DUP were used as the QC samples for pH.
- The following samples were run outside of holding time for method SM 4500H+B/9040: T69627-1

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Accutest Laboratories Gulf Coast, Inc.

**Job No:** T69627

**Site:** KLETXFW: Colleyville

**Report Date** 3/2/2011 2:56:30 PM

3 Samples were collected on 02/22/2011 and received at Accutest on 02/25/2011 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of T69627. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GC By Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GFF438

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F80150-4DUP, T69627-1MS were used as the QC samples indicated.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: March 02, 2011

\_\_\_\_\_  
Svetlana Izosimova, QA Officer (signature on file)

LABORATORY REVIEW CHECKLIST: REPORTABLE DATA							
Laboratory Name: Accutest Southeast			Date:03-02-2011				
Project Name: KLETXFW: Colleyville			Laboratory Job Number: T69627				
Reviewer Name: Svetlana Izosimova			Batch Number(s): GFF438				
# <sup>1</sup>	Analysis <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
	OI	CHAIN-OF-CUSTODY (COC): 1) Were all samples included on a completed COC? 2) Did the samples requiring chemical preservation arrive at the laboratory preserved? 3) Were samples requiring thermal preservation within temperature specs at log-in? 4) Were the samples in the appropriate containers?	X				
	OI	SAMPLE AND QUALITY CONTROL (QC) IDENTIFICATION: 1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers? 2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
	OI	TEST REPORTS: 1) Were samples prepared and analyzed within holding times? 2) Were reported results within calibration range? 3) Were all calculations verified? 4) Were all analyte identifications verified? 5) Were sample quantitation limits reported for all analytes not detected? 6) If required for the project, were the tentatively identified compounds reported? 7) Were results reported on a dry weight basis?	X				
	O	SURROGATE RECOVERY DATA: 1) Were surrogates added prior to extraction? 2) Were surrogate percent recoveries in all samples within the laboratory QC acceptance criteria?	X		X		
	OI	TEST REPORTS FOR BLANK SAMPLES: 1) Were appropriate type(s) of blanks analyzed? 2) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? 3) Were blanks free of detected compounds?	X				
	OI	LABORATORY CONTROL SAMPLES (LCSs): 1) Was each LCS prepared from a source external to the calibration standards? 2) Were all project-required analytes included in the LCS? 3) Was each LCS taken through the entire analytical procedure, including preparation and, if applicable, cleanup procedures? 4) Were LCSs analyzed at the required frequency? 5) Were LCS percent recoveries within the laboratory QC acceptance criteria?	X				
	OI	MATRIX SPIKE (MS) and MATRIX SPIKE DUPLICATE (MSD) DATA: 1) Were all project-required analytes included in the MS and MSD? 2) Were MS/MSD analyzed at the appropriate frequency? 3) Were MS percent recoveries within the laboratory QC acceptance criteria? 4) Were MSD percent recoveries and relative percent differences (RPDs) within the laboratory QC acceptance criteria?	X		X		
	OI	ANALYTICAL DUPLICATE DATA: 1) Were appropriate analytical duplicates analyzed for each matrix? 2) Were analytical duplicates analyzed at the appropriate frequency? 3) Were RPDs or relative standard deviations within the laboratory QC acceptance criteria?	X				
	OI	METHOD QUANTITATION LIMITS (MQLs): Is the concentration of the lowest non-zero calibration standard in the calibration curve reported?	X				1
	OI	The ND listed on the hard copy reports and/or EDD represents non detection of the target analyte at a concentration below the MDL.			X		
	OI	VALIDATION RESULTS FOR NON-REFERENCE METHODS Were all samples prepared and analyzed using a Reference Method?	X				
	OI	OTHER PROBLEMS/ANOMALIES: Are all known problems, anomalies or special conditions (e.g., use of minimum analytical limits) associated with the data noted in the Laboratory Review Checklist and Exception Reports?	X				

LAB REVIEW CHECKLIST (continued): SUPPORTING DATA							
Laboratory Name: Accutest Southeast			Date:03-02-2011				
Project Name: KLETXFW: Colleyville			Laboratory Job Number: T69627				
Reviewer Name: Svetlana Izosimova			Batch Number(s): GFF438				
# <sup>1</sup>	Analysis <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
	OI	INITIAL CALIBRATION (ICAL) and ICAL VERIFICATION (ICV): 1) Were response factors (RFs) and/or relative response factors (RRFs) within the method-required QC acceptance criteria? 2) Were percent RSDs or correlation coefficient criteria met? 3) Were the number of standards recommended in the method used for all analytes? 4) Were all points generated between the lowest and highest standard used to calculate the curve? 5) Are ICV data available for all instruments used? 6) Has the calibration curve been verified using a NIST-traceable second source?	X				
	OI	CONTINUING CALIBRATION VERIFICATION (CCV): 1) Was the CCV analyzed at the method-required frequency? 2) Were percent differences within the method-required QC acceptance criteria? 3) Was the ICAL curve verified for each analyte of interest?	X				
	O	MASS SPECTRAL TUNING: 1) Was the appropriate compound for the method used for tuning? 2) Were ion abundance data within the method-required QC acceptance criteria?			X		
	O	INTERNAL STANDARD (IS): 1) Were IS area counts within the method-required QC acceptance criteria? 2) Were IS retention times within the method-required QC acceptance criteria?			X		
	OI	RAW DATA (NELAC Section 1 Appendix A Glossary, and Section 5.12): 1) Were the raw data (e.g., chromatograms, spectral data) reviewed by an analyst? 2) Were all data associated with manual integrations flagged?	X				
	O	DUAL COLUMN CONFIRMATION: 1) Did dual column confirmation results meet the method-required QC acceptance criteria? 2) Were all percent differences less than 25%?			X		
	O	TENTATIVELY IDENTIFIED COMPOUNDS (TICs): If TICs were requested, were the mass spectra and TIC data reviewed?			X		
	I	ICS RESULTS: 1) Were percent recoveries within method acceptance criteria? 2) Were the absolute values for all analytes less than the IDL?	X				
	I	SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS: Were percent differences, recoveries, and linearity within the QC acceptance criteria specified in the method?	X				
	OI	VALIDATION RESULTS FOR NON-REFERENCE METHODS: Are all non-Reference Methods documented and validated (NELAC 5.10.2.1)?			X		
	OI	METHOD DETECTION LIMIT (MDL) STUDIES: Are MDL studies for each analyte in a given matrix current, on file, less than a year old?	X				
	OI	STANDARDS TRACEABILITY: Are all standards used in the analyses NIST-traceable?	X				
	OI	DOCUMENTATION OF WATER AND REAGENTS QUALITY: Is documentation of the quality of water and reagents used in the analyses on file?	X				
	OI	COMPOUND/ANALYTE IDENTIFICATION PROCEDURES: Are the procedures for compound identification documented?	X				
	OI	DEMONSTRATION OF ANALYST CAPABILITY: 1) Was demonstration of capability conducted according to NELAC Appendix 5C? 2) Is documentation of the analyst's demonstration of capability on file? 3) Is documentation of the analyst's proficiency up-to-date and on file?	X				
	OI	PROFICIENCY TEST REPORTS (NELAC 5.4.2): Are proficiency testing or interlaboratory comparison results on file?	X				
	OI	LABORATORY STANDARD OPERATING PROCEDURES (SOPs): Are laboratory SOPs current and on file for each method performed?	X				

<sup>1</sup> Items identified by the letter "R" should be submitted to TNRCC in the Data Package. Items identified by the letter "S" should be retained and made available to the TNRCC upon request for a period of three years after the data are submitted.

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not Reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

<b>LAB REVIEW CHECKLIST (continued): Exception Reports</b>	
Laboratory Name: Accutest Southeast	Date:03-02-2011
Project Name: KLETXFW: Colleyville	Laboratory Job Number: T69627
Reviewer Name: Svetlana Izosimova	Batch Number(s): GFF438
ER #	Description
1	For reporting purposes, the RL on the reports is equal to the MQL. The MDL is equal to the MDL/SQL. The unadjusted MQL is reported in the blank result page for all analysis.
2	All anomalies are discussed in the case narrative.
	All supporting laboratory documentation is on file with the laboratory's QA/QC department

## 1. APPENDIX A LABORATORY DATA PACKAGE COVER PAGE

This data package consists of:

- This signature page, the laboratory review checklist, and the following reportable data:
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.
- The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

**Release Statement:** I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By me signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

**Check, if applicable:**  This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Svetlana Izosimova                      On file                      QA Officer                      03-02-11  
 Name:    Signature:    Title:    Date:

Sample Results

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Report of Analysis

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# Report of Analysis

<b>Client Sample ID:</b> 9		
<b>Lab Sample ID:</b> T69627-1		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F032240.D	1	02/23/11	AK	n/a	n/a	VF4161
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	0.0047 U	0.050	0.0047	mg/l	
71-43-2	Benzene	0.00050 U	0.0020	0.00050	mg/l	
108-86-1	Bromobenzene	0.00082 U	0.0020	0.00082	mg/l	
74-97-5	Bromochloromethane	0.0016 U	0.0020	0.0016	mg/l	
75-27-4	Bromodichloromethane	0.00049 U	0.0020	0.00049	mg/l	
75-25-2	Bromoform	0.0014 U	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	0.00063 U	0.0020	0.00063	mg/l	
135-98-8	sec-Butylbenzene	0.00052 U	0.0020	0.00052	mg/l	
98-06-6	tert-Butylbenzene	0.0013 U	0.0020	0.0013	mg/l	
108-90-7	Chlorobenzene	0.00056 U	0.0020	0.00056	mg/l	
75-00-3	Chloroethane	0.00092 U	0.0020	0.00092	mg/l	
67-66-3	Chloroform	0.00064 U	0.0020	0.00064	mg/l	
95-49-8	o-Chlorotoluene	0.00070 U	0.0020	0.00070	mg/l	
106-43-4	p-Chlorotoluene	0.00056 U	0.0020	0.00056	mg/l	
75-15-0	Carbon disulfide	0.00053 U	0.0020	0.00053	mg/l	
56-23-5	Carbon tetrachloride	0.00066 U	0.0020	0.00066	mg/l	
75-34-3	1,1-Dichloroethane	0.00052 U	0.0020	0.00052	mg/l	
75-35-4	1,1-Dichloroethylene	0.00050 U	0.0020	0.00050	mg/l	
563-58-6	1,1-Dichloropropene	0.00078 U	0.0020	0.00078	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.0019 U	0.0020	0.0019	mg/l	
106-93-4	1,2-Dibromoethane	0.00055 U	0.0020	0.00055	mg/l	
107-06-2	1,2-Dichloroethane	0.00062 U	0.0020	0.00062	mg/l	
78-87-5	1,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
142-28-9	1,3-Dichloropropane	0.00054 U	0.0020	0.00054	mg/l	
594-20-7	2,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
124-48-1	Dibromochloromethane	0.00061 U	0.0020	0.00061	mg/l	
75-71-8	Dichlorodifluoromethane	0.0011 U	0.0020	0.0011	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.00056 U	0.0020	0.00056	mg/l	
10061-01-5	cis-1,3-Dichloropropene	0.00048 U	0.0020	0.00048	mg/l	
541-73-1	m-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	0.00069 U	0.0020	0.00069	mg/l	
106-46-7	p-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> 9		
<b>Lab Sample ID:</b> T69627-1		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

**VOA 8260 List**

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	0.00045 U	0.0020	0.00045	mg/l	
10061-02-6	trans-1,3-Dichloropropene	0.00068 U	0.0020	0.00068	mg/l	
100-41-4	Ethylbenzene	0.00055 U	0.0020	0.00055	mg/l	
591-78-6	2-Hexanone	0.0032 U	0.010	0.0032	mg/l	
87-68-3	Hexachlorobutadiene	0.0013 U	0.0020	0.0013	mg/l	
98-82-8	Isopropylbenzene	0.00051 U	0.0020	0.00051	mg/l	
99-87-6	p-Isopropyltoluene	0.00065 U	0.0020	0.00065	mg/l	
108-10-1	4-Methyl-2-pentanone	0.0099 U	0.010	0.0099	mg/l	
74-83-9	Methyl bromide	0.00094 U	0.0020	0.00094	mg/l	
74-87-3	Methyl chloride	0.00084 U	0.0020	0.00084	mg/l	
74-95-3	Methylene bromide	0.00065 U	0.0020	0.00065	mg/l	
75-09-2	Methylene chloride	0.00041 U	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	0.0039 U	0.010	0.0039	mg/l	
1634-04-4	Methyl Tert Butyl Ether	0.00073 U	0.0020	0.00073	mg/l	
91-20-3	Naphthalene	0.00065 U	0.0050	0.00065	mg/l	
103-65-1	n-Propylbenzene	0.00057 U	0.0020	0.00057	mg/l	
100-42-5	Styrene	0.00056 U	0.0020	0.00056	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.00080 U	0.0020	0.00080	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00062 U	0.0020	0.00062	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.0012 U	0.0020	0.0012	mg/l	
79-00-5	1,1,2-Trichloroethane	0.00098 U	0.0020	0.00098	mg/l	
87-61-6	1,2,3-Trichlorobenzene	0.0011 U	0.0020	0.0011	mg/l	
96-18-4	1,2,3-Trichloropropane	0.0013 U	0.0020	0.0013	mg/l	
120-82-1	1,2,4-Trichlorobenzene	0.00082 U	0.0020	0.00082	mg/l	
95-63-6	1,2,4-Trimethylbenzene	0.00065 U	0.0020	0.00065	mg/l	
108-67-8	1,3,5-Trimethylbenzene	0.00070 U	0.0020	0.00070	mg/l	
127-18-4	Tetrachloroethylene	0.00091 U	0.0020	0.00091	mg/l	
108-88-3	Toluene	0.00043 U	0.0020	0.00043	mg/l	
79-01-6	Trichloroethylene	0.00052 U	0.0020	0.00052	mg/l	
75-69-4	Trichlorofluoromethane	0.0012 U	0.0020	0.0012	mg/l	
75-01-4	Vinyl chloride	0.0010 U	0.0020	0.0010	mg/l	
1330-20-7	Xylene (total)	0.0017 U	0.0060	0.0017	mg/l	
	m,p-Xylene	0.0011 U	0.0040	0.0011	mg/l	
95-47-6	o-Xylene	0.00053 U	0.0020	0.00053	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-122%
17060-07-0	1,2-Dichloroethane-D4	100%		75-121%
2037-26-5	Toluene-D8	102%		87-119%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 9		
<b>Lab Sample ID:</b> T69627-1		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	106%		80-133%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> 9	
<b>Lab Sample ID:</b> T69627-1	<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 02/23/11
<b>Method:</b> RSKSOP-147/175	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FF10441.D	1	02/28/11	AFL	n/a	n/a	F:GFF438
Run #2							

CAS No.	Compound	Result	MQL	SDL	Units	Q
74-82-8	Methane	0.00421	0.00050	0.00016	mg/l	
74-84-0	Ethane	0.00032 U	0.0010	0.00032	mg/l	
74-85-1	Ethene	0.00043 U	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

31  
3

<b>Client Sample ID:</b> 9	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69627-1	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> TNRCC 1005 TX1005	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL049836.D	1	02/24/11	EM	02/24/11	OP17572	GLB727
Run #2							

Run #	Initial Volume	Final Volume
Run #1	30.5 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	0.58 U	2.5	0.58	mg/l	
	TPH (> C12-C28)	0.89 U	2.5	0.89	mg/l	
	TPH (> C28-C35)	0.89 U	2.5	0.89	mg/l	
	TPH (C6-C35)	0.58 U	2.5	0.58	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		70-130%
98-08-8	aaa-Trifluorotoluene	94%		70-130%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 9										
<b>Lab Sample ID:</b> T69627-1						<b>Date Sampled:</b> 02/22/11				
<b>Matrix:</b> AQ - Ground Water						<b>Date Received:</b> 02/23/11				
<b>Project:</b> Colleyville						<b>Percent Solids:</b> n/a				

### Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	0.0095 B	0.20	0.0034	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Sodium	70.0	5.0	0.10	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Strontium	0.566	0.010	0.00040	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA5512

(2) Prep QC Batch: MP14056

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Report of Analysis

<b>Client Sample ID:</b> 9		<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69627-1		<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

### General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Chloride	149	5.0	1.9	mg/l	5	03/02/11	SS	SM 4500 CL C
Solids, Total Dissolved	347	10	2.6	mg/l	1	02/24/11	BG	SM 2540C
pH	7.36			su	1	02/23/11 10:44	LA	SM 4500H+ B/9040

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Report of Analysis

<b>Client Sample ID:</b> 165321		
<b>Lab Sample ID:</b> T69627-2		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F032241.D	1	02/23/11	AK	n/a	n/a	VF4161

Run #1	Purge Volume
Run #2	5.0 ml

## VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	0.0047 U	0.050	0.0047	mg/l	
71-43-2	Benzene	0.00050 U	0.0020	0.00050	mg/l	
108-86-1	Bromobenzene	0.00082 U	0.0020	0.00082	mg/l	
74-97-5	Bromochloromethane	0.0016 U	0.0020	0.0016	mg/l	
75-27-4	Bromodichloromethane	0.00049 U	0.0020	0.00049	mg/l	
75-25-2	Bromoform	0.0014 U	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	0.00063 U	0.0020	0.00063	mg/l	
135-98-8	sec-Butylbenzene	0.00052 U	0.0020	0.00052	mg/l	
98-06-6	tert-Butylbenzene	0.0013 U	0.0020	0.0013	mg/l	
108-90-7	Chlorobenzene	0.00056 U	0.0020	0.00056	mg/l	
75-00-3	Chloroethane	0.00092 U	0.0020	0.00092	mg/l	
67-66-3	Chloroform	0.00064 U	0.0020	0.00064	mg/l	
95-49-8	o-Chlorotoluene	0.00070 U	0.0020	0.00070	mg/l	
106-43-4	p-Chlorotoluene	0.00056 U	0.0020	0.00056	mg/l	
75-15-0	Carbon disulfide	0.00053 U	0.0020	0.00053	mg/l	
56-23-5	Carbon tetrachloride	0.00066 U	0.0020	0.00066	mg/l	
75-34-3	1,1-Dichloroethane	0.00052 U	0.0020	0.00052	mg/l	
75-35-4	1,1-Dichloroethylene	0.00050 U	0.0020	0.00050	mg/l	
563-58-6	1,1-Dichloropropene	0.00078 U	0.0020	0.00078	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.0019 U	0.0020	0.0019	mg/l	
106-93-4	1,2-Dibromoethane	0.00055 U	0.0020	0.00055	mg/l	
107-06-2	1,2-Dichloroethane	0.00062 U	0.0020	0.00062	mg/l	
78-87-5	1,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
142-28-9	1,3-Dichloropropane	0.00054 U	0.0020	0.00054	mg/l	
594-20-7	2,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
124-48-1	Dibromochloromethane	0.00061 U	0.0020	0.00061	mg/l	
75-71-8	Dichlorodifluoromethane	0.0011 U	0.0020	0.0011	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.00056 U	0.0020	0.00056	mg/l	
10061-01-5	cis-1,3-Dichloropropene	0.00048 U	0.0020	0.00048	mg/l	
541-73-1	m-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	0.00069 U	0.0020	0.00069	mg/l	
106-46-7	p-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	

U = Not detected      SDL - Sample Detection Limit

MQL = Method Quantitation Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> 165321	
<b>Lab Sample ID:</b> T69627-2	<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

**VOA 8260 List**

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	0.00045 U	0.0020	0.00045	mg/l	
10061-02-6	trans-1,3-Dichloropropene	0.00068 U	0.0020	0.00068	mg/l	
100-41-4	Ethylbenzene	0.00055 U	0.0020	0.00055	mg/l	
591-78-6	2-Hexanone	0.0032 U	0.010	0.0032	mg/l	
87-68-3	Hexachlorobutadiene	0.0013 U	0.0020	0.0013	mg/l	
98-82-8	Isopropylbenzene	0.00051 U	0.0020	0.00051	mg/l	
99-87-6	p-Isopropyltoluene	0.00065 U	0.0020	0.00065	mg/l	
108-10-1	4-Methyl-2-pentanone	0.0099 U	0.010	0.0099	mg/l	
74-83-9	Methyl bromide	0.00094 U	0.0020	0.00094	mg/l	
74-87-3	Methyl chloride	0.00084 U	0.0020	0.00084	mg/l	
74-95-3	Methylene bromide	0.00065 U	0.0020	0.00065	mg/l	
75-09-2	Methylene chloride	0.00041 U	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	0.0039 U	0.010	0.0039	mg/l	
1634-04-4	Methyl Tert Butyl Ether	0.00073 U	0.0020	0.00073	mg/l	
91-20-3	Naphthalene	0.00065 U	0.0050	0.00065	mg/l	
103-65-1	n-Propylbenzene	0.00057 U	0.0020	0.00057	mg/l	
100-42-5	Styrene	0.00056 U	0.0020	0.00056	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.00080 U	0.0020	0.00080	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00062 U	0.0020	0.00062	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.0012 U	0.0020	0.0012	mg/l	
79-00-5	1,1,2-Trichloroethane	0.00098 U	0.0020	0.00098	mg/l	
87-61-6	1,2,3-Trichlorobenzene	0.0011 U	0.0020	0.0011	mg/l	
96-18-4	1,2,3-Trichloropropane	0.0013 U	0.0020	0.0013	mg/l	
120-82-1	1,2,4-Trichlorobenzene	0.00082 U	0.0020	0.00082	mg/l	
95-63-6	1,2,4-Trimethylbenzene	0.00065 U	0.0020	0.00065	mg/l	
108-67-8	1,3,5-Trimethylbenzene	0.00070 U	0.0020	0.00070	mg/l	
127-18-4	Tetrachloroethylene	0.00091 U	0.0020	0.00091	mg/l	
108-88-3	Toluene	0.00043 U	0.0020	0.00043	mg/l	
79-01-6	Trichloroethylene	0.00052 U	0.0020	0.00052	mg/l	
75-69-4	Trichlorofluoromethane	0.0012 U	0.0020	0.0012	mg/l	
75-01-4	Vinyl chloride	0.0010 U	0.0020	0.0010	mg/l	
1330-20-7	Xylene (total)	0.0017 U	0.0060	0.0017	mg/l	
	m,p-Xylene	0.0011 U	0.0040	0.0011	mg/l	
95-47-6	o-Xylene	0.00053 U	0.0020	0.00053	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-122%
17060-07-0	1,2-Dichloroethane-D4	99%		75-121%
2037-26-5	Toluene-D8	103%		87-119%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 165321	
<b>Lab Sample ID:</b> T69627-2	<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	107%		80-133%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

32  
3

<b>Client Sample ID:</b> 165321	
<b>Lab Sample ID:</b> T69627-2	<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 02/23/11
<b>Method:</b> RSKSOP-147/175	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FF10444.D	1	02/28/11	AFL	n/a	n/a	F:GFF438
Run #2							

CAS No.	Compound	Result	MQL	SDL	Units	Q
74-82-8	Methane	0.00033	0.00050	0.00016	mg/l	J
74-84-0	Ethane	0.00032 U	0.0010	0.00032	mg/l	
74-85-1	Ethene	0.00043 U	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

32  
3

<b>Client Sample ID:</b> 165321	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69627-2	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> TNRCC 1005 TX1005	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL049837.D	1	02/24/11	EM	02/24/11	OP17572	GLF727
Run #2							

Run #	Initial Volume	Final Volume
Run #1	30.1 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	0.58 U	2.5	0.58	mg/l	
	TPH (> C12-C28)	0.90 U	2.5	0.90	mg/l	
	TPH (> C28-C35)	0.90 U	2.5	0.90	mg/l	
	TPH (C6-C35)	0.58 U	2.5	0.58	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	106%		70-130%
98-08-8	aaa-Trifluorotoluene	97%		70-130%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 165321	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69627-2	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	0.0269 B	0.20	0.0034	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Sodium	59.1	5.0	0.10	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Strontium	0.336	0.010	0.00040	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA5512

(2) Prep QC Batch: MP14056

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Report of Analysis

<b>Client Sample ID:</b> 165321	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69627-2	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Chloride	142	5.0	1.9	mg/l	5	03/02/11	SS	SM 4500 CL C
Solids, Total Dissolved	328	10	2.6	mg/l	1	02/24/11	BG	SM 2540C
pH	7.61			su	1	02/23/11 10:44	LA	SM 4500H+ B/9040

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

# Report of Analysis

<b>Client Sample ID:</b> 6		
<b>Lab Sample ID:</b> T69627-3		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F032242.D	1	02/23/11	AK	n/a	n/a	VF4161
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	0.0047 U	0.050	0.0047	mg/l	
71-43-2	Benzene	0.00050 U	0.0020	0.00050	mg/l	
108-86-1	Bromobenzene	0.00082 U	0.0020	0.00082	mg/l	
74-97-5	Bromochloromethane	0.0016 U	0.0020	0.0016	mg/l	
75-27-4	Bromodichloromethane	0.00049 U	0.0020	0.00049	mg/l	
75-25-2	Bromoform	0.0014 U	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	0.00063 U	0.0020	0.00063	mg/l	
135-98-8	sec-Butylbenzene	0.00052 U	0.0020	0.00052	mg/l	
98-06-6	tert-Butylbenzene	0.0013 U	0.0020	0.0013	mg/l	
108-90-7	Chlorobenzene	0.00056 U	0.0020	0.00056	mg/l	
75-00-3	Chloroethane	0.00092 U	0.0020	0.00092	mg/l	
67-66-3	Chloroform	0.00064 U	0.0020	0.00064	mg/l	
95-49-8	o-Chlorotoluene	0.00070 U	0.0020	0.00070	mg/l	
106-43-4	p-Chlorotoluene	0.00056 U	0.0020	0.00056	mg/l	
75-15-0	Carbon disulfide	0.00053 U	0.0020	0.00053	mg/l	
56-23-5	Carbon tetrachloride	0.00066 U	0.0020	0.00066	mg/l	
75-34-3	1,1-Dichloroethane	0.00052 U	0.0020	0.00052	mg/l	
75-35-4	1,1-Dichloroethylene	0.00050 U	0.0020	0.00050	mg/l	
563-58-6	1,1-Dichloropropene	0.00078 U	0.0020	0.00078	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.0019 U	0.0020	0.0019	mg/l	
106-93-4	1,2-Dibromoethane	0.00055 U	0.0020	0.00055	mg/l	
107-06-2	1,2-Dichloroethane	0.00062 U	0.0020	0.00062	mg/l	
78-87-5	1,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
142-28-9	1,3-Dichloropropane	0.00054 U	0.0020	0.00054	mg/l	
594-20-7	2,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
124-48-1	Dibromochloromethane	0.00061 U	0.0020	0.00061	mg/l	
75-71-8	Dichlorodifluoromethane	0.0011 U	0.0020	0.0011	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.00056 U	0.0020	0.00056	mg/l	
10061-01-5	cis-1,3-Dichloropropene	0.00048 U	0.0020	0.00048	mg/l	
541-73-1	m-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	0.00069 U	0.0020	0.00069	mg/l	
106-46-7	p-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	6	<b>Date Sampled:</b>	02/22/11
<b>Lab Sample ID:</b>	T69627-3	<b>Date Received:</b>	02/23/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	Colleyville		

## VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	0.00045 U	0.0020	0.00045	mg/l	
10061-02-6	trans-1,3-Dichloropropene	0.00068 U	0.0020	0.00068	mg/l	
100-41-4	Ethylbenzene	0.00055 U	0.0020	0.00055	mg/l	
591-78-6	2-Hexanone	0.0032 U	0.010	0.0032	mg/l	
87-68-3	Hexachlorobutadiene	0.0013 U	0.0020	0.0013	mg/l	
98-82-8	Isopropylbenzene	0.00051 U	0.0020	0.00051	mg/l	
99-87-6	p-Isopropyltoluene	0.00065 U	0.0020	0.00065	mg/l	
108-10-1	4-Methyl-2-pentanone	0.0099 U	0.010	0.0099	mg/l	
74-83-9	Methyl bromide	0.00094 U	0.0020	0.00094	mg/l	
74-87-3	Methyl chloride	0.00084 U	0.0020	0.00084	mg/l	
74-95-3	Methylene bromide	0.00065 U	0.0020	0.00065	mg/l	
75-09-2	Methylene chloride	0.00041 U	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	0.0039 U	0.010	0.0039	mg/l	
1634-04-4	Methyl Tert Butyl Ether	0.00073 U	0.0020	0.00073	mg/l	
91-20-3	Naphthalene	0.00065 U	0.0050	0.00065	mg/l	
103-65-1	n-Propylbenzene	0.00057 U	0.0020	0.00057	mg/l	
100-42-5	Styrene	0.00056 U	0.0020	0.00056	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.00080 U	0.0020	0.00080	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00062 U	0.0020	0.00062	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.0012 U	0.0020	0.0012	mg/l	
79-00-5	1,1,2-Trichloroethane	0.00098 U	0.0020	0.00098	mg/l	
87-61-6	1,2,3-Trichlorobenzene	0.0011 U	0.0020	0.0011	mg/l	
96-18-4	1,2,3-Trichloropropane	0.0013 U	0.0020	0.0013	mg/l	
120-82-1	1,2,4-Trichlorobenzene	0.00082 U	0.0020	0.00082	mg/l	
95-63-6	1,2,4-Trimethylbenzene	0.00065 U	0.0020	0.00065	mg/l	
108-67-8	1,3,5-Trimethylbenzene	0.00070 U	0.0020	0.00070	mg/l	
127-18-4	Tetrachloroethylene	0.00091 U	0.0020	0.00091	mg/l	
108-88-3	Toluene	0.00043 U	0.0020	0.00043	mg/l	
79-01-6	Trichloroethylene	0.00052 U	0.0020	0.00052	mg/l	
75-69-4	Trichlorofluoromethane	0.0012 U	0.0020	0.0012	mg/l	
75-01-4	Vinyl chloride	0.0010 U	0.0020	0.0010	mg/l	
1330-20-7	Xylene (total)	0.0017 U	0.0060	0.0017	mg/l	
	m,p-Xylene	0.0011 U	0.0040	0.0011	mg/l	
95-47-6	o-Xylene	0.00053 U	0.0020	0.00053	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-122%
17060-07-0	1,2-Dichloroethane-D4	99%		75-121%
2037-26-5	Toluene-D8	103%		87-119%

U = Not detected      SDL - Sample Detection Limit  
MQL = Method Quantitation Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 6		
<b>Lab Sample ID:</b> T69627-3		<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/23/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	107%		80-133%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 6	
<b>Lab Sample ID:</b> T69627-3	<b>Date Sampled:</b> 02/22/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 02/23/11
<b>Method:</b> RSKSOP-147/175	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FF10447.D	1	02/28/11	AFL	n/a	n/a	F:GFF438
Run #2							

CAS No.	Compound	Result	MQL	SDL	Units	Q
74-82-8	Methane	0.00486	0.00050	0.00016	mg/l	
74-84-0	Ethane	0.00032 U	0.0010	0.00032	mg/l	
74-85-1	Ethene	0.00043 U	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

33

<b>Client Sample ID:</b> 6	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69627-3	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> TNRCC 1005 TX1005	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL049838.D	1	02/24/11	EM	02/24/11	OP17572	GLB727
Run #2							

Run #	Initial Volume	Final Volume
Run #1	30.8 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	0.57 U	2.4	0.57	mg/l	
	TPH (> C12-C28)	0.88 U	2.4	0.88	mg/l	
	TPH (> C28-C35)	0.88 U	2.4	0.88	mg/l	
	TPH (C6-C35)	0.57 U	2.4	0.57	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	101%		70-130%
98-08-8	aaa-Trifluorotoluene	93%		70-130%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 6		<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69627-3		<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

### Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	0.0068 B	0.20	0.0034	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Sodium	222	5.0	0.10	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Strontium	0.120	0.010	0.00040	mg/l	1	02/24/11	02/25/11 TW	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA5512

(2) Prep QC Batch: MP14056

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Report of Analysis

<b>Client Sample ID:</b> 6	<b>Date Sampled:</b> 02/22/11
<b>Lab Sample ID:</b> T69627-3	<b>Date Received:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Chloride	1.5	1.0	0.38	mg/l	1	03/02/11	SS	SM 4500 CL C
Solids, Total Dissolved	563	10	2.6	mg/l	1	02/24/11	BG	SM 2540C
pH	9.02			su	1	02/23/11 10:44	LA	SM 4500H+ B/9040

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- LRC Form



# SAMPLE INSPECTION FORM

Accutest Job Number: T69627 Client: Klemfelder Date/Time Received: 2-23-11 800  
 # of Coolers Received: 1 Thermometer #: 110 Temperature Adjustment Factor: -5°C  
 Cooler Temperatures (initial/adjusted): #1: 3.0°/2.5°C #2: \_\_\_\_\_ #3: \_\_\_\_\_ #4: \_\_\_\_\_ #5: \_\_\_\_\_  
 #6: \_\_\_\_\_ #7: \_\_\_\_\_ #8: \_\_\_\_\_ #9: \_\_\_\_\_ #10: \_\_\_\_\_ #11: \_\_\_\_\_ #12: \_\_\_\_\_  
 Method of Delivery: FEDEX UPS Accutest Courier Greyhound Delivery Other

**COOLER INFORMATION**

- Custody seal missing or not intact
- Temperature criteria not met
- Wet ice received in cooler

**CHAIN OF CUSTODY**

- Chain of Custody not received
- Sample D/T unclear or missing
- Analyses unclear or missing
- COC not properly executed

**SAMPLE INFORMATION**

- Sample containers received broken
- VOC vials have headspace
- Sample labels missing or illegible
- ID on COC does not match label(s)
- D/T on COC does not match label(s)
- Sample/Bottles rcvd but no analysis on COC
- Sample listed on COC, but not received
- Bottles missing for requested analysis
- Insufficient volume for analysis
- Sample received improperly preserved

**TRIP BLANK INFORMATION**

- Trip Blank on COC but not received
- Trip Blank received but not on COC
- Trip Blank not intact
- Received Water Trip Blank
- Received Soil TB

Number of Encores? \_\_\_\_\_  
 Number of 5035 kits? \_\_\_\_\_  
 Number of lab-filtered metals? \_\_\_\_\_

Summary of Discrepancies:

(2) received copy of COC  
Accutest Trip Blank received, NOT listed on COC.

TECHNICIAN SIGNATURE/DATE: [Signature] 2-23-11

INFORMATION AND SAMPLE LABELING VERIFIED BY: [Signature] JRA 2/23/11

**CORRECTIVE ACTIONS**

Client Representative Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Accutest Representative: \_\_\_\_\_ Via: Phone Email  
 Client Instructions: \_\_\_\_\_

I:\mwalker\form\samplemanagement SM023 Revised 8/11/10

**SAMPLE RECEIPT LOG**

JOB #: T69627 DATE/TIME RECEIVED: 2-23-11 800

CLIENT: Kleinfelder INITIALS: ES

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	9	2-22-11 945	W	1000	1	30 Dec	① 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	250	2	1L	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	3-5	"	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	6-8	VR	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	9-11	SUB	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	12-14	SUB	1 2 3 4 5 6 7 8	<2 >12
	2	165321	2-22-11 1500		1000	1	30 Dec	① 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	250	2	1L	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	3-5	"	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	6-8	VR	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	9-11	SUB	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	12-14	SUB	1 2 3 4 5 6 7 8	<2 >12
	3	6	2-22-11 1555		1000	1	30 Dec	① 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	250	2	1L	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	3-5	"	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	6-8	VR	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	9-11	SUB	1 2 3 4 5 6 7 8	<2 >12
	↓	↓	↓	↓	40	12-14	SUB	1 2 3 4 5 6 7 8	<2 >12
	4	Trip Blank	2/2/11	WTS	40	1-2	VR	1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other  
 LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer  
 Rev 8/13/01 ewp

4.1  
4

**T69627: Chain of Custody**

**Page 3 of 3**

# Appendix A Laboratory Data Package Cover Page

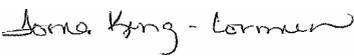
This data package is for Job No. T69627 and laboratory batch no(s): VF4161, OP17572, MP14056, GN29005, GP11910 and GN28978 consist of

- This signature page, the laboratory review checklist, and the following reportable data:
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) The calculated RPD, and
  - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Report. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld.

**Check, if applicable:**  This laboratory meets an exception under 30 TAC&25.6 and was last inspection by  TCEQ or  \_\_\_\_\_ on Oct. 2008. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tonia King-Cormier		QA Manager	03/10/2011
Name (Printed)	Signature	Official Title (printed)	Date

<b>Appendix A (cont'd): Laboratory Review Checklist: Reportable Data</b>							
Laboratory Name: Accutest Laboratories Gulf Coast		LRC Date: 03/10/2011					
Project Name: Colleyville		Laboratory Job Number: T69627					
Reviewer Name: Tonia King-Cormier		Prep Batch Number(s): VF4161,OP17572,MP14056,GN29005,GP11910 and GN28978					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
		<b>Chain-of-custody (C-O-C)</b>					
R1	OI	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	<b>Sample and quality control (QC) identification</b>					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	<b>Test reports</b>					
		Were all samples prepared and analyzed within holding times?		X			2
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	<b>Surrogate recovery data</b>					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	<b>Test reports/summary forms for blank samples</b>					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	<b>Laboratory control samples (LCS):</b>					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	<b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	<b>Analytical duplicate data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	<b>Method quantitation limits (MQLs):</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?			X		
R10	OI	<b>Other problems/anomalies</b>					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL minimize the matrix interference affects on the sample results?	X				
		Is the Laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

## Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: Accutest Laboratories Gulf Coast	LRC Date: 03/10/2011
Project Name: Colleyville	Laboratory Job Number: T69627
Reviewer Name: Tonia King-Cormier	Prep Batch Number(s): VF4161,OP17572,MP14056,GN29005,GP11910 and GN28978

# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sub>3</sub>	NR <sup>4</sup>	ER <sub>#</sub> <sup>5</sup>
S1	OI	<b>Initial calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	<b>Initial and continuing calibration verification (ICCV and CCV) and continuing calibration</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	<b>Mass spectral tuning:</b>					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	<b>Internal standards (IS):</b>					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	<b>Raw data (NELAC section 5.5.10)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	<b>Dual column confirmation</b>					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	<b>Tentatively identified compounds (TICs):</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	<b>Interference Check Sample (ICS) results:</b>					
		Were percent recoveries within method QC limits?	X				
S9	I	<b>Serial dilutions, post digestion spikes, and method of standard additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	<b>Method detection limit (MDL) studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	<b>Proficiency test reports:</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	<b>Compound/analyte identification procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of analyst competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/validation documentation for methods (NELAC Chap 5)</b>					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	<b>Laboratory standard operating procedures (SOPs):</b>					
		Are laboratory SOPs current and on file for each method performed?	X				

<b>Appendix A (cont'd): Laboratory Review Checklist: Exception Reports</b>	
Laboratory Name: Accutest Laboratories Gulf Coast	LRC Date: 03/10/2011
Project Name: Colleyville	Laboratory Job Number: T69627
Reviewer Name: Tonia King-Cormier	Prep Batch Number: VF4161,OP17572,MP14056,GN29005,GP11910 and GN28978
DESCRIPTION	
1	For reporting purposes, the MQL is defined in the report as the RL. The unadjusted MQL/RL is reported in the method blank. The SDL/MDL is defined in the report as the MDL.
2	All anomalies are discussed in the case narrative

1. Items identified by the letter “R” must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter “S” should be retained and made available upon request for the appropriate retention period.
2. O= organic analyses; I= inorganic analyses (and general chemistry, when applicable);
3. NA = Not Applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

## GC/MS Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4161-MB	F032228.D	1	02/23/11	AK	n/a	n/a	VF4161

The QC reported here applies to the following samples:

Method: SW846 8260B

T69627-1, T69627-2, T69627-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	4.7	ug/l	
71-43-2	Benzene	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.82	ug/l	
74-97-5	Bromochloromethane	ND	2.0	1.6	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.49	ug/l	
75-25-2	Bromoform	ND	2.0	1.4	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.63	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.52	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	1.3	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.56	ug/l	
75-00-3	Chloroethane	ND	2.0	0.92	ug/l	
67-66-3	Chloroform	ND	2.0	0.64	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.70	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.56	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.66	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.52	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.9	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.55	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.62	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.62	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.54	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.62	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.61	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.1	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.56	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.48	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.69	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.68	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
591-78-6	2-Hexanone	ND	10	3.2	ug/l	

## Method Blank Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4161-MB	F032228.D	1	02/23/11	AK	n/a	n/a	VF4161

The QC reported here applies to the following samples:

Method: SW846 8260B

T69627-1, T69627-2, T69627-3

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	2.0	1.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.65	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	9.9	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.94	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.84	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.65	ug/l	
75-09-2	Methylene chloride	ND	5.0	0.41	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	3.9	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.73	ug/l	
91-20-3	Naphthalene	ND	5.0	0.65	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.57	ug/l	
100-42-5	Styrene	ND	2.0	0.56	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.80	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.62	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.98	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.1	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.82	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.65	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.70	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.91	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.52	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	1.2	ug/l	
75-01-4	Vinyl chloride	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	
	m,p-Xylene	ND	4.0	1.1	ug/l	
95-47-6	o-Xylene	ND	2.0	0.53	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	101% 79-122%
17060-07-0	1,2-Dichloroethane-D4	97% 75-121%

## Method Blank Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4161-MB	F032228.D	1	02/23/11	AK	n/a	n/a	VF4161

The QC reported here applies to the following samples:

Method: SW846 8260B

T69627-1, T69627-2, T69627-3

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	103% 87-119%
460-00-4	4-Bromofluorobenzene	105% 80-133%

5.1.1  
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# Blank Spike Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4161-BS	F032226.D	1	02/23/11	AK	n/a	n/a	VF4161

The QC reported here applies to the following samples:

Method: SW846 8260B

T69627-1, T69627-2, T69627-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	140	112	62-124
71-43-2	Benzene	25	24.5	98	76-118
108-86-1	Bromobenzene	25	22.1	88	72-110
74-97-5	Bromochloromethane	25	23.9	96	69-110
75-27-4	Bromodichloromethane	25	24.5	98	68-107
75-25-2	Bromoform	25	21.7	87	64-103
104-51-8	n-Butylbenzene	25	24.3	97	74-114
135-98-8	sec-Butylbenzene	25	25.0	100	76-118
98-06-6	tert-Butylbenzene	25	24.3	97	72-116
108-90-7	Chlorobenzene	25	23.7	95	74-111
75-00-3	Chloroethane	25	26.7	107	75-135
67-66-3	Chloroform	25	24.2	97	75-117
95-49-8	o-Chlorotoluene	25	23.3	93	74-113
106-43-4	p-Chlorotoluene	25	23.8	95	72-114
75-15-0	Carbon disulfide	25	24.2	97	57-126
56-23-5	Carbon tetrachloride	25	26.3	105	75-125
75-34-3	1,1-Dichloroethane	25	25.0	100	76-121
75-35-4	1,1-Dichloroethylene	25	26.7	107	71-128
563-58-6	1,1-Dichloropropene	25	26.9	108	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	27.9	112	55-121
106-93-4	1,2-Dibromoethane	25	23.7	95	69-106
107-06-2	1,2-Dichloroethane	25	24.3	97	70-111
78-87-5	1,2-Dichloropropane	25	24.9	100	71-113
142-28-9	1,3-Dichloropropane	25	23.8	95	69-106
594-20-7	2,2-Dichloropropane	25	27.8	111	68-130
124-48-1	Dibromochloromethane	25	23.1	92	69-104
75-71-8	Dichlorodifluoromethane	25	29.5	118	28-120
156-59-2	cis-1,2-Dichloroethylene	25	26.0	104	68-113
10061-01-5	cis-1,3-Dichloropropene	25	24.5	98	71-111
541-73-1	m-Dichlorobenzene	25	23.6	94	74-110
95-50-1	o-Dichlorobenzene	25	24.0	96	72-108
106-46-7	p-Dichlorobenzene	25	23.4	94	74-110
156-60-5	trans-1,2-Dichloroethylene	25	25.1	100	70-125
10061-02-6	trans-1,3-Dichloropropene	25	24.7	99	75-111
100-41-4	Ethylbenzene	25	24.1	96	75-112
591-78-6	2-Hexanone	125	128	102	60-113

# Blank Spike Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4161-BS	F032226.D	1	02/23/11	AK	n/a	n/a	VF4161

The QC reported here applies to the following samples:

Method: SW846 8260B

T69627-1, T69627-2, T69627-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	28.6	114	72-123
98-82-8	Isopropylbenzene	25	27.3	109	75-123
99-87-6	p-Isopropyltoluene	25	24.2	97	76-116
108-10-1	4-Methyl-2-pentanone	125	130	104	63-115
74-83-9	Methyl bromide	25	24.8	99	59-132
74-87-3	Methyl chloride	25	28.5	114	56-150
74-95-3	Methylene bromide	25	23.5	94	68-114
75-09-2	Methylene chloride	25	23.6	94	70-113
78-93-3	Methyl ethyl ketone	125	136	109	62-117
1634-04-4	Methyl Tert Butyl Ether	25	24.5	98	65-113
91-20-3	Naphthalene	25	30.2	121	53-127
103-65-1	n-Propylbenzene	25	24.6	98	74-115
100-42-5	Styrene	25	24.1	96	66-100
630-20-6	1,1,1,2-Tetrachloroethane	25	23.5	94	72-108
71-55-6	1,1,1-Trichloroethane	25	25.6	102	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	24.4	98	67-110
79-00-5	1,1,2-Trichloroethane	25	24.0	96	69-107
87-61-6	1,2,3-Trichlorobenzene	25	28.7	115	51-128
96-18-4	1,2,3-Trichloropropane	25	23.6	94	55-116
120-82-1	1,2,4-Trichlorobenzene	25	27.5	110	63-114
95-63-6	1,2,4-Trimethylbenzene	25	23.8	95	73-111
108-67-8	1,3,5-Trimethylbenzene	25	23.1	92	74-115
127-18-4	Tetrachloroethylene	25	25.1	100	77-120
108-88-3	Toluene	25	24.1	96	77-114
79-01-6	Trichloroethylene	25	24.9	100	74-117
75-69-4	Trichlorofluoromethane	25	28.0	112	64-132
75-01-4	Vinyl chloride	25	29.1	116	64-121
1330-20-7	Xylene (total)	75	72.3	96	75-111
	m,p-Xylene	50	48.3	97	75-112
95-47-6	o-Xylene	25	24.0	96	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	79-122%
17060-07-0	1,2-Dichloroethane-D4	98%	75-121%

5.2.1  
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# Blank Spike Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4161-BS	F032226.D	1	02/23/11	AK	n/a	n/a	VF4161

The QC reported here applies to the following samples:

Method: SW846 8260B

T69627-1, T69627-2, T69627-3

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	100%	87-119%
460-00-4	4-Bromofluorobenzene	95%	80-133%

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69443-11MS	F032230.D	10	02/23/11	AK	n/a	n/a	VF4161
T69443-11MSD	F032231.D	10	02/23/11	AK	n/a	n/a	VF4161
T69443-11	F032229.D	10	02/23/11	AK	n/a	n/a	VF4161

The QC reported here applies to the following samples:

Method: SW846 8260B

T69627-1, T69627-2, T69627-3

CAS No.	Compound	T69443-11 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	1250	1240	99	1390	111	11	62-124/21
71-43-2	Benzene	647	250	907	104	871	90	4	76-118/16
108-86-1	Bromobenzene	ND	250	221	88	219	88	1	72-110/12
74-97-5	Bromochloromethane	ND	250	238	95	235	94	1	69-110/12
75-27-4	Bromodichloromethane	ND	250	240	96	229	92	5	68-107/12
75-25-2	Bromoform	ND	250	205	82	216	86	5	64-103/14
104-51-8	n-Butylbenzene	ND	250	241	96	237	95	2	74-114/12
135-98-8	sec-Butylbenzene	ND	250	247	99	242	97	2	76-118/12
98-06-6	tert-Butylbenzene	ND	250	245	98	240	96	2	72-116/14
108-90-7	Chlorobenzene	ND	250	238	95	233	93	2	74-111/11
75-00-3	Chloroethane	ND	250	257	103	241	96	6	75-135/15
67-66-3	Chloroform	ND	250	245	98	232	93	5	75-117/12
95-49-8	o-Chlorotoluene	ND	250	235	94	226	90	4	74-113/12
106-43-4	p-Chlorotoluene	ND	250	241	96	235	94	3	72-114/12
75-15-0	Carbon disulfide	ND	250	240	96	232	93	3	57-126/13
56-23-5	Carbon tetrachloride	ND	250	260	104	247	99	5	75-125/12
75-34-3	1,1-Dichloroethane	ND	250	254	102	243	97	4	76-121/13
75-35-4	1,1-Dichloroethylene	ND	250	276	110	262	105	5	71-128/19
563-58-6	1,1-Dichloropropene	ND	250	272	109	253	101	7	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	232	93	282	113	19	55-121/33
106-93-4	1,2-Dibromoethane	ND	250	217	87	230	92	6	69-106/13
107-06-2	1,2-Dichloroethane	ND	250	229	92	225	90	2	70-111/14
78-87-5	1,2-Dichloropropane	ND	250	242	97	237	95	2	71-113/12
142-28-9	1,3-Dichloropropane	ND	250	224	90	230	92	3	69-106/12
594-20-7	2,2-Dichloropropane	ND	250	280	112	255	102	9	68-130/14
124-48-1	Dibromochloromethane	ND	250	221	88	225	90	2	69-104/12
75-71-8	Dichlorodifluoromethane	ND	250	267	107	253	101	5	28-120/21
156-59-2	cis-1,2-Dichloroethylene	ND	250	259	104	251	100	3	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND	250	243	97	237	95	3	71-111/12
541-73-1	m-Dichlorobenzene	ND	250	234	94	231	92	1	74-110/12
95-50-1	o-Dichlorobenzene	ND	250	261	104	257	103	2	72-108/12
106-46-7	p-Dichlorobenzene	ND	250	234	94	232	93	1	74-110/12
156-60-5	trans-1,2-Dichloroethylene	ND	250	255	102	242	97	5	70-125/14
10061-02-6	trans-1,3-Dichloropropene	ND	250	242	97	244	98	1	75-111/12
100-41-4	Ethylbenzene	118	250	366	99	351	93	4	75-112/12
591-78-6	2-Hexanone	ND	1250	1100	88	1290	103	16	60-113/18

5.3.1  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69443-11MS	F032230.D	10	02/23/11	AK	n/a	n/a	VF4161
T69443-11MSD	F032231.D	10	02/23/11	AK	n/a	n/a	VF4161
T69443-11	F032229.D	10	02/23/11	AK	n/a	n/a	VF4161

The QC reported here applies to the following samples:

Method: SW846 8260B

T69627-1, T69627-2, T69627-3

CAS No.	Compound	T69443-11 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND	250	260	104	248	99	5	72-123/17
98-82-8	Isopropylbenzene	21.8	250	297	110	288	106	3	75-123/12
99-87-6	p-Isopropyltoluene	ND	250	241	96	237	95	2	76-116/12
108-10-1	4-Methyl-2-pentanone	ND	1250	1190	95	1350	108	13	63-115/21
74-83-9	Methyl bromide	ND	250	228	91	220	88	4	59-132/15
74-87-3	Methyl chloride	ND	250	261	104	271	108	4	56-150/17
74-95-3	Methylene bromide	ND	250	228	91	232	93	2	68-114/13
75-09-2	Methylene chloride	8.8	J 250	245	94	234	90	5	70-113/13
78-93-3	Methyl ethyl ketone	ND	1250	1230	98	1390	111	12	62-117/21
1634-04-4	Methyl Tert Butyl Ether	ND	250	225	90	237	95	5	65-113/13
91-20-3	Naphthalene	ND	250	244	98	266	106	9	53-127/34
103-65-1	n-Propylbenzene	19.3	J 250	264	98	256	95	3	74-115/12
100-42-5	Styrene	ND	250	239	96	235	94	2	66-100/11
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	235	94	227	91	3	72-108/11
71-55-6	1,1,1-Trichloroethane	ND	250	255	102	242	97	5	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	218	87	245	98	12	67-110/20
79-00-5	1,1,2-Trichloroethane	ND	250	227	91	234	94	3	69-107/14
87-61-6	1,2,3-Trichlorobenzene	ND	250	232	93	246	98	6	51-128/31
96-18-4	1,2,3-Trichloropropane	ND	250	214	86	232	93	8	55-116/27
120-82-1	1,2,4-Trichlorobenzene	ND	250	248	99	244	98	2	63-114/21
95-63-6	1,2,4-Trimethylbenzene	ND	250	239	96	234	94	2	73-111/13
108-67-8	1,3,5-Trimethylbenzene	ND	250	237	95	231	92	3	74-115/12
127-18-4	Tetrachloroethylene	ND	250	244	98	243	97	0	77-120/13
108-88-3	Toluene	ND	250	239	96	238	95	0	77-114/12
79-01-6	Trichloroethylene	ND	250	252	101	242	97	4	74-117/12
75-69-4	Trichlorofluoromethane	ND	250	265	106	232	93	13	64-132/18
75-01-4	Vinyl chloride	ND	250	274	110	268	107	2	64-121/19
1330-20-7	Xylene (total)	ND	750	737	98	713	95	3	75-111/12
	m,p-Xylene	ND	500	491	98	477	95	3	75-112/12
95-47-6	o-Xylene	ND	250	246	98	237	95	4	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T69443-11	Limits
1868-53-7	Dibromofluoromethane	99%	96%	101%	79-122%
17060-07-0	1,2-Dichloroethane-D4	97%	95%	99%	75-121%

5.3.1  
 5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69443-11MS	F032230.D	10	02/23/11	AK	n/a	n/a	VF4161
T69443-11MSD	F032231.D	10	02/23/11	AK	n/a	n/a	VF4161
T69443-11	F032229.D	10	02/23/11	AK	n/a	n/a	VF4161

The QC reported here applies to the following samples:

Method: SW846 8260B

T69627-1, T69627-2, T69627-3

CAS No.	Surrogate Recoveries	MS	MSD	T69443-11	Limits
2037-26-5	Toluene-D8	98%	98%	100%	87-119%
460-00-4	4-Bromofluorobenzene	95%	95%	102%	80-133%

5.3.1  
5

## GC Semi-volatiles

---

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP17572-MB	LL049826.D	1	02/24/11	EM	02/24/11	OP17572	GLB727

The QC reported here applies to the following samples:

Method: TNRCC 1005

T69627-1, T69627-2, T69627-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	2.5	0.59	mg/l	
	TPH (> C12-C28)	ND	2.5	0.90	mg/l	
	TPH (> C28-C35)	ND	2.5	0.90	mg/l	
	TPH (C6-C35)	ND	2.5	0.59	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	98%	70-130%
98-08-8	aaa-Trifluorotoluene	85%	70-130%

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP17572-BS	LL049827.D	1	02/24/11	EM	02/24/11	OP17572	GLF727
OP17572-BSD	LL049828.D	1	02/24/11	EM	02/24/11	OP17572	GLB727

The QC reported here applies to the following samples:

Method: TNRCC 1005

T69627-1, T69627-2, T69627-3

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	48.9	47.0	96	42.1	86	11	75-125/25
	TPH (> C12-C28)	48.9	56.3	115	54.3	111	4	75-125/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	105%	103%	70-130%
98-08-8	aaa-Trifluorotoluene	95%	96%	70-130%

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69627  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP17572-MS	LL049829.D	1	02/24/11	EM	02/24/11	OP17572	GLF727
OP17572-MSD	LL049830.D	1	02/24/11	EM	02/24/11	OP17572	GLB727
T69616-7	LL049853.D	1	02/24/11	EM	02/24/11	OP17572	GLF727

The QC reported here applies to the following samples:

Method: TNRCC 1005

T69627-1, T69627-2, T69627-3

CAS No.	Compound	T69616-7 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	ND	49.6	47.0	95	43.5	88	8	75-125/25
	TPH (> C12-C28)	ND	49.6	56.7	114	52.5	106	8	75-125/25

CAS No.	Surrogate Recoveries	MS	MSD	T69616-7	Limits
84-15-1	o-Terphenyl	107%	98%	107%	70-130%
98-08-8	aaa-Trifluorotoluene	95%	93%	98%	70-130%

6.3.1

6

## Metals Analysis

---

## QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: T69627  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

QC Batch ID: MP14056  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 02/24/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	12		
Antimony	5.0	1	1		
Arsenic	5.0	1.7	1		
Barium	200	.97	3.4	0.30	<200
Beryllium	5.0	.056	.16		
Boron	100	1.4	7.8		
Cadmium	4.0	.11	.09		
Calcium	5000	7.4	25		
Chromium	10	.23	.27		
Cobalt	50	.15	.22		
Copper	25	1.1	5.9		
Iron	100	1.1	23		
Lead	3.0	1	1.8		
Lithium	300	2	2		
Magnesium	5000	7.7	7.9		
Manganese	15	.054	1.9		
Molybdenum	10	.39	.2		
Nickel	40	.69	1.4		
Potassium	5000	39	45		
Selenium	5.0	1.5	.98		
Silver	10	1.2	.24		
Sodium	5000	9.2	100	9.7	<5000
Strontium	10	.061	.4	0.12	<10
Thallium	10	.67	1.2		
Tin	20	.69	2.8		
Titanium	20	.29	.3		
Vanadium	50	.3	.3		
Zinc	20	.51	3.5		

Associated samples MP14056: T69627-1, T69627-2, T69627-3

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

7.1.1  
7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T69627  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14056  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 02/24/11 02/24/11

Metal	T69622-1		QC	T69622-1		Spikelot	QC		
	Original	DUP	Limits	Original	MS	MPTW4	Limits		
Aluminum	anr								
Antimony									
Arsenic									
Barium	114	114	0.0	0-20	114	529	400	103.8	80-120
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead									
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium	144000	146000	1.4	0-20	144000	189000	50000	90.0	80-120
Strontium	215	217	0.9	0-20	215	624	200	102.1	80-120
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP14056: T69627-1, T69627-2, T69627-3

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.12  
 7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T69627  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14056  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 02/24/11

Metal	T69622-1 Original MSD		SpikeLot MPTW4	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony						
Arsenic						
Barium	114	523	400	102.3	1.1	20
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron						
Lead						
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver						
Sodium	144000	192000	50000	96.0	1.6	20
Strontium	215	627	200	103.0	0.5	20
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP14056: T69627-1, T69627-2, T69627-3

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.1.2  
7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T69627  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14056  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 02/24/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum	anr			
Antimony				
Arsenic				
Barium	413	400	103.3	80-120
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium	52600	50000	105.2	80-120
Strontium	416	200	104.0	80-120
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP14056: T69627-1, T69627-2, T69627-3

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.1.3  
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: T69627  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14056  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 02/24/11

Metal	T69622-1 Original SDL 1:5		%DIF	QC Limits
Aluminum	anr			
Antimony				
Arsenic				
Barium	114	113	1.3	0-10
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium	144000	148000	3.0	0-10
Strontium	215	213	0.7	0-10
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP14056: T69627-1, T69627-2, T69627-3

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.1.4  
7

## General Chemistry

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### QC Data Summaries

---

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
 GENERAL CHEMISTRY

Login Number: T69627  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP11910/GN29150	1.0	0.0	mg/l	1000	969	96.9	92-107%
Solids, Total Dissolved	GN29005	10	0.0	mg/l	500	504	100.8	80-120%

Associated Samples:

Batch GN29005: T69627-1, T69627-2, T69627-3

Batch GP11910: T69627-1, T69627-2, T69627-3

(\*) Outside of QC limits

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T69627  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP11910/GN29150	T69627-3	mg/l	1.5	1.5	0.0	0-5%
Solids, Total Dissolved	GN29005	T69283-2	mg/l	879	864	1.7	0-5%
pH	GN28978	T69617-1	su	7.51	7.47	0.5	0-6.8%

Associated Samples:

Batch GN28978: T69627-1, T69627-2, T69627-3

Batch GN29005: T69627-1, T69627-2, T69627-3

Batch GP11910: T69627-1, T69627-2, T69627-3

(\*) Outside of QC limits

8.2

8

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T69627  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP11910/GN29150	T69627-3	mg/l	1.5	10	11.4	99.0	81-119%

Associated Samples:

Batch GP11910: T69627-1, T69627-2, T69627-3

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



Misc. Forms

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Custody Documents and Other Forms

(Accutest Laboratories Southeast, Inc.)

---

Includes the following where applicable:

- Chain of Custody

FED-EX Tracking #	Bottle Order Count
Accutest Quote #	Accutest Job # <b>T69627</b>

Client Information		Subcontract Information		Requested Analyses										Matrix Codes										
Company Name Accutest Gulf Coast		Subcontract Laboratory ACCUTEST FLORIDA												DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge OL - Oil LIQ - Liquid SOL - Other Solid										
Project Contact Sylvia Garza		Laboratory Contact																						
Email sylvia.g@accutest.com		Email																						
Address 10165 Harwin Dr, Suite 150		Sample Receiving Address																						
City State Zip Houston TX 77036		City State Zip																						
Phone No. 713-271-4700		Phone No.		Methane, Ethane, Ethene, Ethyne (VRSK147/DOIMEE)										LAB USE ONLY										
Accutest Sample Number		Collection													Number of preserved bottles									

Turnaround Time (Business days)		Data Deliverable Information		Comments / Remarks	
<input type="checkbox"/> STANDARD <input type="checkbox"/> 7 Day <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> Other		Approved By: _____ Date: _____ Approved By: _____ Date: MAR 2nd		<input type="checkbox"/> Commercial "A" <input checked="" type="checkbox"/> Commercial "B" <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> Full Data Package  <input checked="" type="checkbox"/> TRRP-13 <input type="checkbox"/> EDD Format <input type="checkbox"/> Other: NAHK	
Real time analytical data available via Lablink		Commercial "A" = Results Only Commercial "B" = Results & Standard QC			

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1	2	02/25/11 10:15	
3		3	4		
5		5	4		

Preserved where applicable    
  On Ice    
  Cooler Temp. 2.6

9.1  
9

T69627: Chain of Custody  
 Page 1 of 2  
 Accutest Laboratories Southeast, Inc.

**ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION**

ACCUTEST'S JOB NUMBER: T69627 CLIENT: Aleg PROJECT: T69627  
 DATE/TIME RECEIVED: 02.25.11 12:15 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1  
 METHOD OF DELIVERY:  FEDEX  UPS ACCUTEST COURIER  GREYHOUND DELIVERY  OTHER  
 AIRBILL NUMBERS: 79679653 0269

**COOLER INFORMATION**

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET
- WET ICE PRESENT

**TRIP BLANK INFORMATION**

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES? 25-GRAM 5-GRAM  
 NUMBER OF 5035 FIELD KITS? \_\_\_\_\_  
 NUMBER OF LAB FILTERED METALS? \_\_\_\_\_

**TEMPERATURE INFORMATION**

IR THERM ID 1 CORR. FACTOR 1.2  
 OBSERVED TEMPS: 2.8  
 CORRECTED TEMPS: 2.6

**SAMPLE INFORMATION**

- SAMPLE LABELS PRESENT ON ALL BOTTLES
- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- % SOLIDS JAR NOT RECEIVED
- 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS: "Water Samples"

TECHNICIAN SIGNATURE/DATE ET 02.25.11 REVIEWER SIGNATURE/DATE [Signature] 02/25/11  
 NF 12/10 receipt confirmation 122910.xls

9.1  
9

## GC Volatiles

---

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

**Job Number:** T69627  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF438-MB	FF10436.D	1	02/28/11	WV	n/a	n/a	GFF438

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69627-1, T69627-2, T69627-3

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

10.1.1  
10

# Blank Spike Summary

**Job Number:** T69627  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF438-BS	FF10437.D	1	02/28/11	WV	n/a	n/a	GFF438

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69627-1, T69627-2, T69627-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	80.8	75	54-149
74-84-0	Ethane	219	166	76	57-143
74-85-1	Ethene	290	218	75	57-143

10.2.1  
10

# Matrix Spike Summary

**Job Number:** T69627  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69627-1MS	FF10442.D	1	02/28/11	WV	n/a	n/a	GFF438
T69627-1	FF10441.D	1	02/28/11	WV	n/a	n/a	GFF438

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69627-1, T69627-2, T69627-3

CAS No.	Compound	T69627-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	4.21	108	109	97	54-149
74-84-0	Ethane	1.0 U	219	215	98	57-143
74-85-1	Ethene	1.0 U	290	283	98	57-143

10.3.1  
10

# Duplicate Summary

**Job Number:** T69627  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F80150-4DUP	FF10448.D	5	02/28/11	WV	n/a	n/a	GFF438
F80150-4	FF10438.D	5	02/28/11	WV	n/a	n/a	GFF438

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69627-1, T69627-2, T69627-3

CAS No.	Compound	F80150-4 ug/l	DUP Q ug/l	Q RPD	Limits
74-82-8	Methane	2540	2310	9	24
74-84-0	Ethane	5.0 U	ND	nc	23
74-85-1	Ethene	5.0 U	ND	nc	10

10.4.1  
10

Technical Report for

Kleinfelder

Colleyville

Accutest Job Number: T69775

Sampling Date: 02/23/11

Report to:

Kleinfelder  
7805 Mesquite Bend Drive Suite 100  
Irving, TX 75063  
KMiears@kleinfelder.com

ATTN: Kyle Miears

Total number of pages in report: **58**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



Paul Canevaro  
Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103)

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Test results relate only to samples analyzed.

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## Sample Summary

Kleinfelder

Job No: T69775

Colleyville

Sample Number	Collected		Matrix			Client Sample ID
	Date	Time By	Received	Code	Type	
T69775-1	02/23/11	09:40 KM	02/24/11	AQ	Ground Water	10



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Kleinfelder

**Job No** T69775

**Site:** Colleyville

**Report Date** 3/9/2011 9:04:31 AM

1 Sample(s) were collected on 02/23/2011 and were received at Accutest on 02/24/2011 properly preserved, at 0.9 Deg. C and intact. These Samples received an Accutest job number of T69775. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

<b>Matrix</b> AQ	<b>Batch ID:</b> VC676
------------------	------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69776-5MS, T69776-5MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for Bromoform are outside control limits.
- Matrix Spike Recovery(s) for Styrene are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Bromoform are outside control limits. Probable cause due to matrix interference.
- VC676-MB for Methylene chloride: Suspected laboratory contaminant.

### Volatiles by GC By Method RSKSOP-147/175

<b>Matrix</b> AQ	<b>Batch ID:</b> F:GFF439
------------------	---------------------------

- T69775-1: Analysis performed at Accutest Laboratories, Orlando, FL.

### Extractables by GC By Method TNRCC 1005

<b>Matrix</b> AQ	<b>Batch ID:</b> OP17612
------------------	--------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) OP17612-MSMSD, T69701-15MS, T69701-15MSD were used as the QC samples indicated.

### Metals By Method EPA 200.7

<b>Matrix</b> AQ	<b>Batch ID:</b> MP14083
------------------	--------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69775-1DUP, T69775-1MS, T69775-1MSD, T69775-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Barium are outside control limits for sample MP14083-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

### Wet Chemistry By Method SM 2540C

<b>Matrix</b> AQ	<b>Batch ID:</b> GN29117
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69549-2DUP were used as the QC samples for Solids, Total Dissolved.

### Wet Chemistry By Method SM 4500 CL C

<b>Matrix</b> AQ	<b>Batch ID:</b> GP11910
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T69627-3DUP, T69627-3MS were used as the QC samples for Chloride.

### Wet Chemistry By Method SM 4500H+B/9040

<b>Matrix</b> AQ	<b>Batch ID:</b> GN29075
------------------	--------------------------

- Sample(s) T69775-1DUP were used as the QC samples for pH.
- The following samples were run outside of holding time for method SM 4500H+B/9040: T69775-1

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Accutest Laboratories Gulf Coast, Inc.

**Job No:** T69775

**Site:** KLETXFW: Colleyville

**Report Date** 3/3/2011 10:53:03 AM

1 Sample was collected on 02/23/2011 and were received at Accutest on 02/25/2011 properly preserved, at 2.0 Deg. C and intact. These Samples received an Accutest job number of T69775. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GC By Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GFF439

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F80134-10MS, F80134-9DUP were used as the QC samples indicated.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: March 03, 2011

\_\_\_\_\_  
Svetlana Izosimova, QA Officer (signature on file)

LABORATORY REVIEW CHECKLIST: REPORTABLE DATA							
Laboratory Name: Accutest Southeast				Date:03-03-2011			
Project Name: KLETXFW: Colleyville				Laboratory Job Number: T69775			
Reviewer Name: Svetlana Izosimova				Batch Number(s): GFF439			
# <sup>1</sup>	Analysis <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
	OI	CHAIN-OF-CUSTODY (COC): 1) Were all samples included on a completed COC? 2) Did the samples requiring chemical preservation arrive at the laboratory preserved? 3) Were samples requiring thermal preservation within temperature specs at log-in? 4) Were the samples in the appropriate containers?	X				
	OI	SAMPLE AND QUALITY CONTROL (QC) IDENTIFICATION: 1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers? 2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
	OI	TEST REPORTS: 1) Were samples prepared and analyzed within holding times? 2) Were reported results within calibration range? 3) Were all calculations verified? 4) Were all analyte identifications verified? 5) Were sample quantitation limits reported for all analytes not detected? 6) If required for the project, were the tentatively identified compounds reported? 7) Were results reported on a dry weight basis?	X				
	O	SURROGATE RECOVERY DATA: 1) Were surrogates added prior to extraction? 2) Were surrogate percent recoveries in all samples within the laboratory QC acceptance criteria?	X		X		
	OI	TEST REPORTS FOR BLANK SAMPLES: 1) Were appropriate type(s) of blanks analyzed? 2) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? 3) Were blanks free of detected compounds?	X				
	OI	LABORATORY CONTROL SAMPLES (LCSs): 1) Was each LCS prepared from a source external to the calibration standards? 2) Were all project-required analytes included in the LCS? 3) Was each LCS taken through the entire analytical procedure, including preparation and, if applicable, cleanup procedures? 4) Were LCSs analyzed at the required frequency? 5) Were LCS percent recoveries within the laboratory QC acceptance criteria?	X				
	OI	MATRIX SPIKE (MS) and MATRIX SPIKE DUPLICATE (MSD) DATA: 1) Were all project-required analytes included in the MS and MSD? 2) Were MS/MSD analyzed at the appropriate frequency? 3) Were MS percent recoveries within the laboratory QC acceptance criteria? 4) Were MSD percent recoveries and relative percent differences (RPDs) within the laboratory QC acceptance criteria?	X		X		
	OI	ANALYTICAL DUPLICATE DATA: 1) Were appropriate analytical duplicates analyzed for each matrix? 2) Were analytical duplicates analyzed at the appropriate frequency? 3) Were RPDs or relative standard deviations within the laboratory QC acceptance criteria?	X				
	OI	METHOD QUANTITATION LIMITS (MQLs): Is the concentration of the lowest non-zero calibration standard in the calibration curve reported?	X				1
	OI	The ND listed on the hard copy reports and/or EDD represents non detection of the target analyte at a concentration below the MDL.			X		
	OI	VALIDATION RESULTS FOR NON-REFERENCE METHODS Were all samples prepared and analyzed using a Reference Method?	X				
	OI	OTHER PROBLEMS/ANOMALIES: Are all known problems, anomalies or special conditions (e.g., use of minimum analytical limits) associated with the data noted in the Laboratory Review Checklist and Exception Reports?	X				

LAB REVIEW CHECKLIST (continued): SUPPORTING DATA							
Laboratory Name: Accutest Southeast			Date:03-03-2011				
Project Name: KLETXFW: Colleyville			Laboratory Job Number: T69775				
Reviewer Name: Svetlana Izosimova			Batch Number(s): GFF439				
# <sup>1</sup>	Analysis <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
	OI	INITIAL CALIBRATION (ICAL) and ICAL VERIFICATION (ICV):					
		1) Were response factors (RFs) and/or relative response factors (RRFs) within the method-required QC acceptance criteria?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Were the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICV data available for all instruments used?	X				
		6) Has the calibration curve been verified using a NIST-traceable second source?	X				
	OI	CONTINUING CALIBRATION VERIFICATION (CCV):					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences within the method-required QC acceptance criteria?	X				
		3) Was the ICAL curve verified for each analyte of interest?	X				
	O	MASS SPECTRAL TUNING:					
		1) Was the appropriate compound for the method used for tuning?			X		
		2) Were ion abundance data within the method-required QC acceptance criteria?			X		
	O	INTERNAL STANDARD (IS):					
		1) Were IS area counts within the method-required QC acceptance criteria?			X		
		2) Were IS retention times within the method-required QC acceptance criteria?			X		
	OI	RAW DATA (NELAC Section 1 Appendix A Glossary, and Section 5.12):					
		1) Were the raw data (e.g., chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were all data associated with manual integrations flagged?	X				
	O	DUAL COLUMN CONFIRMATION:					
		1) Did dual column confirmation results meet the method-required QC acceptance criteria?			X		
		2) Were all percent differences less than 25%?			X		
	O	TENTATIVELY IDENTIFIED COMPOUNDS (TICs):					
		If TICs were requested, were the mass spectra and TIC data reviewed?			X		
	I	ICS RESULTS:					
		1) Were percent recoveries within method acceptance criteria?	X				
		2) Were the absolute values for all analytes less than the IDL?	X				
	I	SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS:					
		Were percent differences, recoveries, and linearity within the QC acceptance criteria specified in the method?	X				
	OI	VALIDATION RESULTS FOR NON-REFERENCE METHODS:					
		Are all non-Reference Methods documented and validated (NELAC 5.10.2.1)?			X		
	OI	METHOD DETECTION LIMIT (MDL) STUDIES:					
		Are MDL studies for each analyte in a given matrix current, on file, less than a year old?	X				
	OI	STANDARDS TRACEABILITY:					
		Are all standards used in the analyses NIST-traceable?	X				
	OI	DOCUMENTATION OF WATER AND REAGENTS QUALITY:					
		Is documentation of the quality of water and reagents used in the analyses on file?	X				
	OI	COMPOUND/ANALYTE IDENTIFICATION PROCEDURES:					
		Are the procedures for compound identification documented?	X				
	OI	DEMONSTRATION OF ANALYST CAPABILITY:					
		1) Was demonstration of capability conducted according to NELAC Appendix 5C?	X				
		2) Is documentation of the analyst's demonstration of capability on file?	X				
		3) Is documentation of the analyst's proficiency up-to-date and on file?	X				
	OI	PROFICIENCY TEST REPORTS (NELAC 5.4.2):					
		Are proficiency testing or interlaboratory comparison results on file?	X				
	OI	LABORATORY STANDARD OPERATING PROCEDURES (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

<sup>1</sup> Items identified by the letter "R" should be submitted to TNRCC in the Data Package. Items identified by the letter "S" should be retained and made available to the TNRCC upon request for a period of three years after the data are submitted.

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not Reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

<b>LAB REVIEW CHECKLIST (continued): Exception Reports</b>	
Laboratory Name: Accutest Southeast	Date:03-03-2011
Project Name: KLETXFW: Colleyville	Laboratory Job Number: T69775
Reviewer Name: Svetlana Izosimova	Batch Number(s): GFF439
ER #	Description
1	For reporting purposes, the RL on the reports is equal to the MQL. The MDL is equal to the MDL/SQL. The unadjusted MQL is reported in the blank result page for all analysis.
2	All anomalies are discussed in the case narrative.
	All supporting laboratory documentation is on file with the laboratory's QA/QC department

## 1. APPENDIX A LABORATORY DATA PACKAGE COVER PAGE

This data package consists of:

- This signature page, the laboratory review checklist, and the following reportable data:
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.
- The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

**Release Statement:** I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

**Check, if applicable:**  This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Svetlana Izosimova                      On file                      QA Officer                      03-03-11  
 Name:    Signature:    Title:    Date:

Sample Results

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Report of Analysis

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# Report of Analysis

3.1  
3

<b>Client Sample ID:</b> 10		
<b>Lab Sample ID:</b> T69775-1		<b>Date Sampled:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/24/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	C0015372.D	1	03/01/11	AK	n/a	n/a	VC676

Run #1	Purge Volume
Run #2	5.0 ml

### VOA 8260 List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	0.0047 U	0.050	0.0047	mg/l	
71-43-2	Benzene	0.00050 U	0.0020	0.00050	mg/l	
108-86-1	Bromobenzene	0.00082 U	0.0020	0.00082	mg/l	
74-97-5	Bromochloromethane	0.0016 U	0.0020	0.0016	mg/l	
75-27-4	Bromodichloromethane	0.00049 U	0.0020	0.00049	mg/l	
75-25-2	Bromoform	0.0014 U	0.0020	0.0014	mg/l	
104-51-8	n-Butylbenzene	0.00063 U	0.0020	0.00063	mg/l	
135-98-8	sec-Butylbenzene	0.00052 U	0.0020	0.00052	mg/l	
98-06-6	tert-Butylbenzene	0.0013 U	0.0020	0.0013	mg/l	
108-90-7	Chlorobenzene	0.00056 U	0.0020	0.00056	mg/l	
75-00-3	Chloroethane	0.00092 U	0.0020	0.00092	mg/l	
67-66-3	Chloroform	0.00064 U	0.0020	0.00064	mg/l	
95-49-8	o-Chlorotoluene	0.00070 U	0.0020	0.00070	mg/l	
106-43-4	p-Chlorotoluene	0.00056 U	0.0020	0.00056	mg/l	
75-15-0	Carbon disulfide	0.00053 U	0.0020	0.00053	mg/l	
56-23-5	Carbon tetrachloride	0.00066 U	0.0020	0.00066	mg/l	
75-34-3	1,1-Dichloroethane	0.00052 U	0.0020	0.00052	mg/l	
75-35-4	1,1-Dichloroethylene	0.00050 U	0.0020	0.00050	mg/l	
563-58-6	1,1-Dichloropropene	0.00078 U	0.0020	0.00078	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.0019 U	0.0020	0.0019	mg/l	
106-93-4	1,2-Dibromoethane	0.00055 U	0.0020	0.00055	mg/l	
107-06-2	1,2-Dichloroethane	0.00062 U	0.0020	0.00062	mg/l	
78-87-5	1,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
142-28-9	1,3-Dichloropropane	0.00054 U	0.0020	0.00054	mg/l	
594-20-7	2,2-Dichloropropane	0.00062 U	0.0020	0.00062	mg/l	
124-48-1	Dibromochloromethane	0.00061 U	0.0020	0.00061	mg/l	
75-71-8	Dichlorodifluoromethane	0.0011 U	0.0020	0.0011	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.00056 U	0.0020	0.00056	mg/l	
10061-01-5	cis-1,3-Dichloropropene	0.00048 U	0.0020	0.00048	mg/l	
541-73-1	m-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	0.00069 U	0.0020	0.00069	mg/l	
106-46-7	p-Dichlorobenzene	0.0010 U	0.0020	0.0010	mg/l	

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> 10		
<b>Lab Sample ID:</b> T69775-1		<b>Date Sampled:</b> 02/23/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 02/24/11
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville		

**VOA 8260 List**

CAS No.	Compound	Result	MQL	SDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	0.00045 U	0.0020	0.00045	mg/l	
10061-02-6	trans-1,3-Dichloropropene	0.00068 U	0.0020	0.00068	mg/l	
100-41-4	Ethylbenzene	0.00055 U	0.0020	0.00055	mg/l	
591-78-6	2-Hexanone	0.0032 U	0.010	0.0032	mg/l	
87-68-3	Hexachlorobutadiene	0.0013 U	0.0020	0.0013	mg/l	
98-82-8	Isopropylbenzene	0.00051 U	0.0020	0.00051	mg/l	
99-87-6	p-Isopropyltoluene	0.00065 U	0.0020	0.00065	mg/l	
108-10-1	4-Methyl-2-pentanone	0.0099 U	0.010	0.0099	mg/l	
74-83-9	Methyl bromide	0.00094 U	0.0020	0.00094	mg/l	
74-87-3	Methyl chloride	0.00084 U	0.0020	0.00084	mg/l	
74-95-3	Methylene bromide	0.00065 U	0.0020	0.00065	mg/l	
75-09-2	Methylene chloride	0.00041 U	0.0050	0.00041	mg/l	
78-93-3	Methyl ethyl ketone	0.0039 U	0.010	0.0039	mg/l	
1634-04-4	Methyl Tert Butyl Ether	0.00073 U	0.0020	0.00073	mg/l	
91-20-3	Naphthalene	0.00065 U	0.0050	0.00065	mg/l	
103-65-1	n-Propylbenzene	0.00057 U	0.0020	0.00057	mg/l	
100-42-5	Styrene	0.00056 U	0.0020	0.00056	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.00080 U	0.0020	0.00080	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00062 U	0.0020	0.00062	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.0012 U	0.0020	0.0012	mg/l	
79-00-5	1,1,2-Trichloroethane	0.00098 U	0.0020	0.00098	mg/l	
87-61-6	1,2,3-Trichlorobenzene	0.0011 U	0.0020	0.0011	mg/l	
96-18-4	1,2,3-Trichloropropane	0.0013 U	0.0020	0.0013	mg/l	
120-82-1	1,2,4-Trichlorobenzene	0.00082 U	0.0020	0.00082	mg/l	
95-63-6	1,2,4-Trimethylbenzene	0.00065 U	0.0020	0.00065	mg/l	
108-67-8	1,3,5-Trimethylbenzene	0.00070 U	0.0020	0.00070	mg/l	
127-18-4	Tetrachloroethylene	0.00091 U	0.0020	0.00091	mg/l	
108-88-3	Toluene	0.00043 U	0.0020	0.00043	mg/l	
79-01-6	Trichloroethylene	0.00052 U	0.0020	0.00052	mg/l	
75-69-4	Trichlorofluoromethane	0.0012 U	0.0020	0.0012	mg/l	
75-01-4	Vinyl chloride	0.0010 U	0.0020	0.0010	mg/l	
1330-20-7	Xylene (total)	0.0017 U	0.0060	0.0017	mg/l	
	m,p-Xylene	0.0011 U	0.0040	0.0011	mg/l	
95-47-6	o-Xylene	0.00053 U	0.0020	0.00053	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-122%
17060-07-0	1,2-Dichloroethane-D4	99%		75-121%
2037-26-5	Toluene-D8	101%		87-119%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> 10 <b>Lab Sample ID:</b> T69775-1 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> Colleyville	<b>Date Sampled:</b> 02/23/11 <b>Date Received:</b> 02/24/11 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	91%		80-133%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> 10	<b>Date Sampled:</b> 02/23/11
<b>Lab Sample ID:</b> T69775-1	<b>Date Received:</b> 02/24/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> RSKSOP-147/175	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FF10463.D	1	03/01/11	AFL	n/a	n/a	F:GFF439
Run #2							

CAS No.	Compound	Result	MQL	SDL	Units	Q
74-82-8	Methane	0.00016 U	0.00050	0.00016	mg/l	
74-84-0	Ethane	0.00032 U	0.0010	0.00032	mg/l	
74-85-1	Ethene	0.00043 U	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> 10	<b>Date Sampled:</b> 02/23/11
<b>Lab Sample ID:</b> T69775-1	<b>Date Received:</b> 02/24/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> TNRCC 1005 TX1005	
<b>Project:</b> Colleyville	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL050081.D	1	03/01/11	MK	03/01/11	OP17612	GLF730
Run #2							

Run #	Initial Volume	Final Volume
Run #1	30.1 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	0.59 U	2.5	0.59	mg/l	
	TPH (> C12-C28)	0.90 U	2.5	0.90	mg/l	
	TPH (> C28-C35)	0.90 U	2.5	0.90	mg/l	
	TPH (C6-C35)	0.59 U	2.5	0.59	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		70-130%
98-08-8	aaa-Trifluorotoluene	78%		70-130%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 10	<b>Date Sampled:</b> 02/23/11
<b>Lab Sample ID:</b> T69775-1	<b>Date Received:</b> 02/24/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	0.0051 B	0.20	0.0034	mg/l	1	02/28/11	03/03/11 TW	EPA 200.7 <sup>1</sup>	EPA 200.7 <sup>3</sup>
Sodium	109	5.0	0.10	mg/l	1	02/28/11	03/04/11 TW	EPA 200.7 <sup>2</sup>	EPA 200.7 <sup>3</sup>
Strontium	0.404	0.010	0.00040	mg/l	1	02/28/11	03/03/11 TW	EPA 200.7 <sup>1</sup>	EPA 200.7 <sup>3</sup>

(1) Instrument QC Batch: MA5524

(2) Instrument QC Batch: MA5532

(3) Prep QC Batch: MP14083

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Report of Analysis

<b>Client Sample ID:</b> 10	<b>Date Sampled:</b> 02/23/11
<b>Lab Sample ID:</b> T69775-1	<b>Date Received:</b> 02/24/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Colleyville	

### General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Chloride	79.5	2.0	0.76	mg/l	2	03/02/11	SS	SM 4500 CL C
Solids, Total Dissolved	483	10	2.6	mg/l	1	03/01/11	BG	SM 2540C
pH	7.92			su	1	02/24/11 16:35	LA	SM 4500H+ B/9040

MQL = Method Quantitation Limit  
 SDL = Sample Detection Limit

U = Indicates a result < SDL  
 B = Indicates a result > = SDL but < MQL

## Misc. Forms

---

### Custody Documents and Other Forms

---

Includes the following where applicable:

- Chain of Custody
- LRC Form

10165 Harwin Dr, Ste 150 Houston, TX 77036  
TEL: 713-271-4700 FAX: 713-271-4770  
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>169775</b>
<b>Requested Analyses</b>	
8260 Ethylene Glycol 8260 (VOC) TA1005 (TPH) 200.17 (Ba, Mg, St) Bsk 175 (Mercury Ethane) SMA4500 (pH, TDS, CHL)	
<b>Matrix Codes</b>	
DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
<b>LAB USE ONLY</b>	

Client / Reporting Information		Project Information	
Company Name <b>Kleinfelder</b>	Project Name <b>Collegville</b>	Billing Information (If different from Report to)	
Street Address <b>2805 Mesquite Bend</b>	Street	Company Name	
City <b>Irving TX</b>	City	State	
State <b>TX</b>	State	Zip	
Zip <b>75039</b>	Zip	City	
Project Contact	E-mail	Project #	
Phone #	Fax #	Client Purchase Order #	
Sampler(s) Name(s) <b>V. J. McCaris</b>	Phone #	Project Manager	
Attention:	Collection		
Accutest Sample #	Field ID / Point of Collection	Date	Time
1	10	2-23-11	9:40
		Sampled By	Matrix
		<b>KRM</b>	<b>Water</b>
		# of bottles	14
		HCl	X
		NH <sub>4</sub> OH	X
		ZnAcOH	X
		NH <sub>4</sub> NO <sub>3</sub>	X
		NH <sub>4</sub> SCN	X
		NO <sub>3</sub> <sup>-</sup>	X
		DI Water	
		MEOH	
		NH <sub>4</sub> SO <sub>4</sub>	
		TSP	
		ENCPRE	
		OTHER	

Turnaround Time (Business days)	Approved By (Accutest PM): / Date:	Data Deliverable Information	Comments / Special Instructions
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink	_____	<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULL1 (Level 3+4) <input type="checkbox"/> REDT1 (Level 3+4) <input type="checkbox"/> Commercial "C" Commercial "A" = Results Only Commercial "B" = Results + QC Summary Commercial "C" = Results + QC & Surrogate Summary	

Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler: 1	Date Time: 2-23-11 15:20	Received By: 1	Date Time: 2-23-11 15:20
Relinquished by Sampler: 2	Date Time:	Received By: 2	Date Time: 2-24-11
Relinquished by Sampler: 3	Date Time:	Received By: 3	Date Time:
Relinquished by Sampler: 4	Date Time:	Received By: 4	Date Time:
Relinquished by Sampler: 5	Date Time:	Received By: 5	Date Time:
Custody Seal #		<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact	
		On Ice <input type="checkbox"/> Cooler Temp. <b>40.95</b>	

### SAMPLE INSPECTION FORM

Accutest Job Number: T69775 Client: Kleinfelder Date/Time Received: 2/24/11 8:20  
 # of Coolers Received: 1 Thermometer #: DR G-104 Temperature Adjustment Factor: 0.0  
 Cooler Temperatures (initial/adjusted): #1: 0.9°C #2: \_\_\_\_\_ #3: \_\_\_\_\_ #4: \_\_\_\_\_ #5: \_\_\_\_\_  
 #6: \_\_\_\_\_ #7: \_\_\_\_\_ #8: \_\_\_\_\_ #9: \_\_\_\_\_ #10: \_\_\_\_\_ #11: \_\_\_\_\_ #12: \_\_\_\_\_

Method of Delivery: FEDEX UPS Accutest Courier Greyhound Delivery Other

**COOLER INFORMATION**

- Custody seal missing or not intact
- Temperature criteria not met
- Wet ice received in cooler

**CHAIN OF CUSTODY**

- Chain of Custody not received
- Sample D/T unclear or missing
- Analyses unclear or missing
- COC not properly executed

**SAMPLE INFORMATION**

- Sample containers received broken
- VOC vials have headspace
- Sample labels missing or illegible
- ID on COC does not match label(s)
- D/T on COC does not match label(s)
- Sample/Bottles rcvd but no analysis on COC
- Sample listed on COC, but not received
- Bottles missing for requested analysis
- Insufficient volume for analysis
- Sample received improperly preserved

**TRIP BLANK INFORMATION**

- Trip Blank on COC but not received
- Trip Blank received but not on COC
- Trip Blank not intact
- Received Water Trip Blank
- Received Soil TB

Number of Encores? \_\_\_\_\_  
 Number of 5035 lds? \_\_\_\_\_  
 Number of lab-filtered metals? \_\_\_\_\_

Summary of Discrepancies:

Received copy of COC

TECHNICIAN SIGNATURE/DATE: \_\_\_\_\_

[Signature] 2/24/11  
 INFORMATION AND SAMPLE LABELING VERIFIED BY: OPK 2/24/11

♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ **CORRECTIVE ACTIONS** ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦

Client Representative Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Accutest Representative: \_\_\_\_\_

Via: Phone Email

Client Instructions: \_\_\_\_\_

I:\mwalker\forms\samplemanagement SM023 Revised 6/11/10

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**SAMPLE RECEIPT LOG**

JOB #: T69775 DATE/TIME RECEIVED: 2-24-11 820  
 CLIENT: Kleinfelder INITIALS: EC

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
↓	1	10	2-23-11 940	W	1000	1	3E	1 2 3 4 5 6 7 8	<2 >12
↓					250	2	1M	1 2 3 4 5 6 7 8	<2 >12
↓					40	35	1M	1 2 3 4 5 6 7 8	<2 >12
↓					40	6-8	VR	1 2 3 4 5 6 7 8	<2 >12
↓					40	9-11	SUB	1 2 3 4 5 6 7 8	<2 >12
↓					40	12-14	SUB	1 2 3 4 5 6 7 8	<2 >12
<del>EC 2-24-11</del>									
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other  
 LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer  
 Rev 8/13/01 ewp



4.1  
4

# Appendix A Laboratory Data Package Cover Page

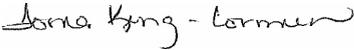
This data package is for Job No.T69775 and laboratory batch no(s): VC676,OP17612,MP14083,GN29117,GP11910 AND GN29075 consist of

- This signature page, the laboratory review checklist, and the following reportable data:
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) The calculated RPD, and
  - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Report. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By me signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld.

**Check, if applicable:**  This laboratory meets an exception under 30 TAC&25.6 and was last inspection by  TCEQ or  \_\_\_\_\_ on Oct. 2008. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Tonia King-Cormier		QA Manager	03/09/2011
Name (Printed)	Signature	Official Title (printed)	Date

## Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: Accutest Laboratories Gulf Coast	LRC Date: 03/09/2011
Project Name: Colleyville	Laboratory Job Number: T69775
Reviewer Name: Tonia King-Cormier	Prep Batch Number(s): VC676,OP17612,MP14083,GN29117,GP11910 AND GN29075

#1	A2	Description	Yes	No	NA3	NR4	ER#5
		<b>Chain-of-custody (C-O-C)</b>					
R1	OI	Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	<b>Sample and quality control (QC) identification</b>					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	<b>Test reports</b>					
		Were all samples prepared and analyzed within holding times?		X			2
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soil/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	<b>Surrogate recovery data</b>					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	<b>Test reports/summary forms for blank samples</b>					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?		X			2
R6	OI	<b>Laboratory control samples (LCS):</b>					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	<b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	<b>Analytical duplicate data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	<b>Method quantitation limits (MQLs):</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?			X		
R10	OI	<b>Other problems/anomalies</b>					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL minimize the matrix interference affects on the sample results?	X				
		Is the Laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

## Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: Accutest Laboratories Gulf Coast	LRC Date: 03/09/2011
Project Name: Colleyville	Laboratory Job Number: T69775
Reviewer Name: Tonia King-Cormier	Prep Batch Number(s): VC676,OP17612,MP14083,GN29117, GP11910 AND GN29075

# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sub>3</sub>	NR <sup>4</sup>	ER # <sup>5</sup>
S1	OI	<b>Initial calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	<b>Initial and continuing calibration verification (ICCV and CCV) and continuing calibration</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	<b>Mass spectral tuning:</b>					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	<b>Internal standards (IS):</b>					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	<b>Raw data (NELAC section 5.5.10)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	<b>Dual column confirmation</b>					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	<b>Tentatively identified compounds (TICs):</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	<b>Interference Check Sample (ICS) results:</b>					
		Were percent recoveries within method QC limits?	X				
S9	I	<b>Serial dilutions, post digestion spikes, and method of standard additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			2
S10	OI	<b>Method detection limit (MDL) studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	<b>Proficiency test reports:</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	<b>Compound/analyte identification procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of analyst competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/validation documentation for methods (NELAC Chap 5)</b>					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	<b>Laboratory standard operating procedures (SOPs):</b>					
		Are laboratory SOPs current and on file for each method performed?	X				

<b>Appendix A (cont'd): Laboratory Review Checklist: Exception Reports</b>	
Laboratory Name: Accutest Laboratories Gulf Coast	LRC Date: 03/09/2011
Project Name: Colleyville	Laboratory Job Number: T69775
Reviewer Name: Tonia King-Cormier	Prep Batch Number: VC676,OP17612,MP14083,GN29117,GP11910 AND GN29075
DESCRIPTION	
1	For reporting purposes, the MQL is defined in the report as the RL. The unadjusted MQL/RL is reported in the method blank. The SDL/MDL is defined in the report as the MDL.
2	All anomalies are discussed in the case narrative

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O= organic analyses; I= inorganic analyses (and general chemistry, when applicable);
3. NA = Not Applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

## GC/MS Volatiles

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5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC676-MB	C0015362.D	1	03/01/11	AK	n/a	n/a	VC676

The QC reported here applies to the following samples:

Method: SW846 8260B

T69775-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	4.7	ug/l	
71-43-2	Benzene	ND	2.0	0.50	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.82	ug/l	
74-97-5	Bromochloromethane	ND	2.0	1.6	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.49	ug/l	
75-25-2	Bromoform	ND	2.0	1.4	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.63	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.52	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	1.3	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.56	ug/l	
75-00-3	Chloroethane	ND	2.0	0.92	ug/l	
67-66-3	Chloroform	ND	2.0	0.64	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.70	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.56	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.66	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.52	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.9	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.55	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.62	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.62	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.54	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.62	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.61	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.1	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	0.56	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.48	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.69	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.68	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
591-78-6	2-Hexanone	ND	10	3.2	ug/l	

# Method Blank Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC676-MB	C0015362.D	1	03/01/11	AK	n/a	n/a	VC676

The QC reported here applies to the following samples:

Method: SW846 8260B

T69775-1

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	2.0	1.3	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.51	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.65	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	9.9	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.94	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.84	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.65	ug/l	
75-09-2	Methylene chloride <sup>a</sup>	0.49	5.0	0.41	ug/l	J
78-93-3	Methyl ethyl ketone	ND	10	3.9	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.73	ug/l	
91-20-3	Naphthalene	ND	5.0	0.65	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.57	ug/l	
100-42-5	Styrene	ND	2.0	0.56	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.80	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.62	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.98	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.1	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.82	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.65	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.70	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	0.91	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.52	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	1.2	ug/l	
75-01-4	Vinyl chloride	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	
	m,p-Xylene	ND	4.0	1.1	ug/l	
95-47-6	o-Xylene	ND	2.0	0.53	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 79-122%
17060-07-0	1,2-Dichloroethane-D4	99% 75-121%

5.1.1  
5

## Method Blank Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC676-MB	C0015362.D	1	03/01/11	AK	n/a	n/a	VC676

The QC reported here applies to the following samples:

Method: SW846 8260B

T69775-1

CAS No.	Surrogate Recoveries	Limits	
2037-26-5	Toluene-D8	102%	87-119%
460-00-4	4-Bromofluorobenzene	91%	80-133%

(a) Suspected laboratory contaminant.

# Blank Spike Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC676-BS	C0015358.D	1	03/01/11	AK	n/a	n/a	VC676

The QC reported here applies to the following samples:

Method: SW846 8260B

T69775-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	117	94	62-124
71-43-2	Benzene	25	24.7	99	76-118
108-86-1	Bromobenzene	25	23.7	95	72-110
74-97-5	Bromochloromethane	25	23.0	92	69-110
75-27-4	Bromodichloromethane	25	25.0	100	68-107
75-25-2	Bromoform	25	26.4	106* a	64-103
104-51-8	n-Butylbenzene	25	21.4	86	74-114
135-98-8	sec-Butylbenzene	25	23.3	93	76-118
98-06-6	tert-Butylbenzene	25	23.2	93	72-116
108-90-7	Chlorobenzene	25	24.3	97	74-111
75-00-3	Chloroethane	25	26.8	107	75-135
67-66-3	Chloroform	25	24.2	97	75-117
95-49-8	o-Chlorotoluene	25	23.1	92	74-113
106-43-4	p-Chlorotoluene	25	23.4	94	72-114
75-15-0	Carbon disulfide	25	21.2	85	57-126
56-23-5	Carbon tetrachloride	25	28.8	115	75-125
75-34-3	1,1-Dichloroethane	25	24.7	99	76-121
75-35-4	1,1-Dichloroethylene	25	26.8	107	71-128
563-58-6	1,1-Dichloropropene	25	26.9	108	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	28.0	112	55-121
106-93-4	1,2-Dibromoethane	25	24.7	99	69-106
107-06-2	1,2-Dichloroethane	25	24.9	100	70-111
78-87-5	1,2-Dichloropropane	25	24.2	97	71-113
142-28-9	1,3-Dichloropropane	25	23.3	93	69-106
594-20-7	2,2-Dichloropropane	25	26.6	106	68-130
124-48-1	Dibromochloromethane	25	25.3	101	69-104
75-71-8	Dichlorodifluoromethane	25	28.8	115	28-120
156-59-2	cis-1,2-Dichloroethylene	25	25.9	104	68-113
10061-01-5	cis-1,3-Dichloropropene	25	25.0	100	71-111
541-73-1	m-Dichlorobenzene	25	23.4	94	74-110
95-50-1	o-Dichlorobenzene	25	22.8	91	72-108
106-46-7	p-Dichlorobenzene	25	23.1	92	74-110
156-60-5	trans-1,2-Dichloroethylene	25	24.3	97	70-125
10061-02-6	trans-1,3-Dichloropropene	25	26.2	105	75-111
100-41-4	Ethylbenzene	25	24.1	96	75-112
591-78-6	2-Hexanone	125	124	99	60-113

5.2.1  
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# Blank Spike Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC676-BS	C0015358.D	1	03/01/11	AK	n/a	n/a	VC676

The QC reported here applies to the following samples:

Method: SW846 8260B

T69775-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	22.4	90	72-123
98-82-8	Isopropylbenzene	25	27.4	110	75-123
99-87-6	p-Isopropyltoluene	25	22.9	92	76-116
108-10-1	4-Methyl-2-pentanone	125	127	102	63-115
74-83-9	Methyl bromide	25	25.8	103	59-132
74-87-3	Methyl chloride	25	24.3	97	56-150
74-95-3	Methylene bromide	25	24.9	100	68-114
75-09-2	Methylene chloride	25	22.0	88	70-113
78-93-3	Methyl ethyl ketone	125	130	104	62-117
1634-04-4	Methyl Tert Butyl Ether	25	23.5	94	65-113
91-20-3	Naphthalene	25	24.1	96	53-127
103-65-1	n-Propylbenzene	25	23.6	94	74-115
100-42-5	Styrene	25	24.3	97	66-100
630-20-6	1,1,1,2-Tetrachloroethane	25	24.4	98	72-108
71-55-6	1,1,1-Trichloroethane	25	26.5	106	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	25.2	101	67-110
79-00-5	1,1,2-Trichloroethane	25	24.5	98	69-107
87-61-6	1,2,3-Trichlorobenzene	25	22.9	92	51-128
96-18-4	1,2,3-Trichloropropane	25	25.0	100	55-116
120-82-1	1,2,4-Trichlorobenzene	25	22.4	90	63-114
95-63-6	1,2,4-Trimethylbenzene	25	22.9	92	73-111
108-67-8	1,3,5-Trimethylbenzene	25	23.2	93	74-115
127-18-4	Tetrachloroethylene	25	26.0	104	77-120
108-88-3	Toluene	25	24.7	99	77-114
79-01-6	Trichloroethylene	25	25.1	100	74-117
75-69-4	Trichlorofluoromethane	25	30.9	124	64-132
75-01-4	Vinyl chloride	25	25.8	103	64-121
1330-20-7	Xylene (total)	75	72.6	97	75-111
	m,p-Xylene	50	48.9	98	75-112
95-47-6	o-Xylene	25	23.7	95	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	79-122%
17060-07-0	1,2-Dichloroethane-D4	98%	75-121%

# Blank Spike Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC676-BS	C0015358.D	1	03/01/11	AK	n/a	n/a	VC676

The QC reported here applies to the following samples:

Method: SW846 8260B

T69775-1

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	100%	87-119%
460-00-4	4-Bromofluorobenzene	94%	80-133%

(a) Outside control limits biased high. Only ND results for this compound are reported for all the samples associated with this BS.

5.2.1  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69776-5MS	C0015376.D	25	03/01/11	AK	n/a	n/a	VC676
T69776-5MSD	C0015377.D	25	03/01/11	AK	n/a	n/a	VC676
T69776-5	C0015379.D	5	03/01/11	AK	n/a	n/a	VC676
T69776-5	C0015375.D	25	03/01/11	AK	n/a	n/a	VC676

The QC reported here applies to the following samples:

Method: SW846 8260B

T69775-1

CAS No.	Compound	T69776-5 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	77.5	J	3130	2740	85	2920	91	6	62-124/21
71-43-2	Benzene	1550 <sup>a</sup>		625	2220	107	2150	96	3	76-118/16
108-86-1	Bromobenzene	10 U		625	587	94	598	96	2	72-110/12
74-97-5	Bromochloromethane	10 U		625	584	93	592	95	1	69-110/12
75-27-4	Bromodichloromethane	10 U		625	643	103	627	100	3	68-107/12
75-25-2	Bromoform	10 U		625	633	101	678	108*	7	64-103/14
104-51-8	n-Butylbenzene	44.6		625	575	85	566	83	2	74-114/12
135-98-8	sec-Butylbenzene	23.1		625	606	93	580	89	4	76-118/12
98-06-6	tert-Butylbenzene	10 U		625	595	95	568	91	5	72-116/14
108-90-7	Chlorobenzene	10 U		625	622	100	613	98	1	74-111/11
75-00-3	Chloroethane	10 U		625	661	106	657	105	1	75-135/15
67-66-3	Chloroform	10 U		625	637	102	623	100	2	75-117/12
95-49-8	o-Chlorotoluene	10 U		625	589	94	583	93	1	74-113/12
106-43-4	p-Chlorotoluene	10 U		625	603	96	591	95	2	72-114/12
75-15-0	Carbon disulfide	10 U		625	588	94	528	84	11	57-126/13
56-23-5	Carbon tetrachloride	10 U		625	732	117	688	110	6	75-125/12
75-34-3	1,1-Dichloroethane	10 U		625	625	100	620	99	1	76-121/13
75-35-4	1,1-Dichloroethylene	10 U		625	717	115	676	108	6	71-128/19
563-58-6	1,1-Dichloropropene	10 U		625	702	112	654	105	7	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	10 U		625	610	98	692	111	13	55-121/33
106-93-4	1,2-Dibromoethane	10 U		625	620	99	628	100	1	69-106/13
107-06-2	1,2-Dichloroethane	10 U		625	672	108	665	106	1	70-111/14
78-87-5	1,2-Dichloropropane	10 U		625	620	99	612	98	1	71-113/12
142-28-9	1,3-Dichloropropane	10 U		625	578	92	589	94	2	69-106/12
594-20-7	2,2-Dichloropropane	10 U		625	694	111	632	101	9	68-130/14
124-48-1	Dibromochloromethane	10 U		625	615	98	648	104	5	69-104/12
75-71-8	Dichlorodifluoromethane	10 U		625	751	120	671	107	11	28-120/21
156-59-2	cis-1,2-Dichloroethylene	10 U		625	681	109	661	106	3	68-113/13
10061-01-5	cis-1,3-Dichloropropene	10 U		625	636	102	623	100	2	71-111/12
541-73-1	m-Dichlorobenzene	10 U		625	602	96	580	93	4	74-110/12
95-50-1	o-Dichlorobenzene	10 U		625	582	93	580	93	0	72-108/12
106-46-7	p-Dichlorobenzene	10 U		625	585	94	566	91	3	74-110/12
156-60-5	trans-1,2-Dichloroethylene	10 U		625	649	104	611	98	6	70-125/14
10061-02-6	trans-1,3-Dichloropropene	10 U		625	639	102	658	105	3	75-111/12
100-41-4	Ethylbenzene	519		625	1130	98	1110	95	2	75-112/12
591-78-6	2-Hexanone	50 U		3130	2770	89	3020	97	9	60-113/18

5.3.1  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69776-5MS	C0015376.D	25	03/01/11	AK	n/a	n/a	VC676
T69776-5MSD	C0015377.D	25	03/01/11	AK	n/a	n/a	VC676
T69776-5	C0015379.D	5	03/01/11	AK	n/a	n/a	VC676
T69776-5	C0015375.D	25	03/01/11	AK	n/a	n/a	VC676

The QC reported here applies to the following samples:

Method: SW846 8260B

T69775-1

CAS No.	Compound	T69776-5 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	10 U		625	563	90	544	87	3	72-123/17
98-82-8	Isopropylbenzene	214		625	906	111	882	107	3	75-123/12
99-87-6	p-Isopropyltoluene	6.7	J	625	585	93	566	89	3	76-116/12
108-10-1	4-Methyl-2-pentanone	50 U		3130	3020	97	3210	103	6	63-115/21
74-83-9	Methyl bromide	10 U		625	634	101	613	98	3	59-132/15
74-87-3	Methyl chloride	10 U		625	608	97	585	94	4	56-150/17
74-95-3	Methylene bromide	10 U		625	636	102	630	101	1	68-114/13
75-09-2	Methylene chloride	3.0	JB	625	578	92	559	89	3	70-113/13
78-93-3	Methyl ethyl ketone	50 U		3130	2950	94	3190	102	8	62-117/21
1634-04-4	Methyl Tert Butyl Ether	509		625	1130	99	1150	103	2	65-113/13
91-20-3	Naphthalene	313		625	923	98	970	105	5	53-127/34
103-65-1	n-Propylbenzene	432		625	997	90	967	86	3	74-115/12
100-42-5	Styrene	10 U		625	629	101*	625	100	1	66-100/11
630-20-6	1,1,1,2-Tetrachloroethane	10 U		625	610	98	616	99	1	72-108/11
71-55-6	1,1,1-Trichloroethane	10 U		625	700	112	658	105	6	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	10 U		625	591	95	612	98	3	67-110/20
79-00-5	1,1,2-Trichloroethane	10 U		625	604	97	616	99	2	69-107/14
87-61-6	1,2,3-Trichlorobenzene	10 U		625	563	90	573	92	2	51-128/31
96-18-4	1,2,3-Trichloropropane	10 U		625	577	92	608	97	5	55-116/27
120-82-1	1,2,4-Trichlorobenzene	10 U		625	565	90	568	91	1	63-114/21
95-63-6	1,2,4-Trimethylbenzene	348		625	926	92	907	89	2	73-111/13
108-67-8	1,3,5-Trimethylbenzene	79.8		625	673	95	649	91	4	74-115/12
127-18-4	Tetrachloroethylene	10 U		625	630	101	627	100	0	77-120/13
108-88-3	Toluene	11.1		625	633	100	626	98	1	77-114/12
79-01-6	Trichloroethylene	10 U		625	660	106	633	101	4	74-117/12
75-69-4	Trichlorofluoromethane	10 U		625	751	120	700	112	7	64-132/18
75-01-4	Vinyl chloride	10 U		625	650	104	630	101	3	64-121/19
1330-20-7	Xylene (total)	432		1880	2310	100	2280	99	1	75-111/12
	m,p-Xylene	429		1250	1680	100	1650	98	2	75-112/12
95-47-6	o-Xylene	3.5	J	625	627	100	622	99	1	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T69776-5	T69776-5	Limits
1868-53-7	Dibromofluoromethane	101%	100%	99%	100%	79-122%
17060-07-0	1,2-Dichloroethane-D4	99%	99%	97%	97%	75-121%

5.3.1  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T69776-5MS	C0015376.D	25	03/01/11	AK	n/a	n/a	VC676
T69776-5MSD	C0015377.D	25	03/01/11	AK	n/a	n/a	VC676
T69776-5	C0015379.D	5	03/01/11	AK	n/a	n/a	VC676
T69776-5	C0015375.D	25	03/01/11	AK	n/a	n/a	VC676

The QC reported here applies to the following samples:

Method: SW846 8260B

T69775-1

CAS No.	Surrogate Recoveries	MS	MSD	T69776-5	T69776-5	Limits
2037-26-5	Toluene-D8	97%	100%	98%	100%	87-119%
460-00-4	4-Bromofluorobenzene	91%	91%	93%	92%	80-133%

(a) Result is from Run #2.

5.3.1  
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## GC Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP17612-MB	LL050087.D	1	03/01/11	MK	03/01/11	OP17612	GLF730

The QC reported here applies to the following samples:

Method: TNRCC 1005

T69775-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	2.5	0.58	mg/l	
	TPH (> C12-C28)	ND	2.5	0.89	mg/l	
	TPH (> C28-C35)	ND	2.5	0.89	mg/l	
	TPH (C6-C35)	ND	2.5	0.58	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	88%	70-130%
98-08-8	aaa-Trifluorotoluene	91%	70-130%

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP17612-BS	IF204433.D	1	03/02/11	MK	03/01/11	OP17612	GIF1169
OP17612-BSD	LL050077.D	1	03/01/11	MK	03/01/11	OP17612	GLF730

The QC reported here applies to the following samples:

Method: TNRCC 1005

T69775-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	50	38.5	77	48.1	98	22	75-125/25
	TPH (> C12-C28)	50	40.7	81	51.5	105	23	75-125/25
	TPH (C6-C35)		79.2		99.6		23	75-125/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	77%	88%	70-130%
98-08-8	aaa-Trifluorotoluene	73%	91%	70-130%

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** T69775  
**Account:** KLETXFW Kleinfelder  
**Project:** Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP17612-MS	IF204434.D	1	03/02/11	MK	03/01/11	OP17612	GIF1169
OP17612-MSD	LL050079.D	1	03/01/11	MK	03/01/11	OP17612	GLF730
T69701-15	LL050080.D	1	03/01/11	MK	03/01/11	OP17612	GLB730

The QC reported here applies to the following samples:

Method: TNRCC 1005

T69775-1

CAS No.	Compound	T69701-15 mg/l	Spike Q	mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	ND		49.9	41.9	84	40.4	81	4	75-125/25
	TPH (> C12-C28)	ND		49.9	47.3	95	54.6	110	14	75-125/25
	TPH (C6-C35)	ND			89.2		95.0		6	75-125/25

CAS No.	Surrogate Recoveries	MS	MSD	T69701-15	Limits
84-15-1	o-Terphenyl	96%	88%	89%	70-130%
98-08-8	aaa-Trifluorotoluene	83%	79%	73%	70-130%

6.3.1  
6

## Metals Analysis

---

## QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: T69775  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

QC Batch ID: MP14083  
Matrix Type: AQUEOUS

Methods: EPA 200.7  
Units: ug/l

Prep Date: 02/28/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	12		
Antimony	5.0	1	2.9		
Arsenic	5.0	1.7	1		
Barium	200	.97	3.4	0.27	<200
Beryllium	5.0	.056	.16		
Boron	100	1.4	7.8		
Cadmium	4.0	.11	.11		
Calcium	5000	7.4	25		
Chromium	10	.23	.27		
Cobalt	50	.15	.22		
Copper	25	1.1	5.9		
Iron	100	1.1	23		
Lead	3.0	1	1.8		
Lithium	300	2	2		
Magnesium	5000	7.7	7.9		
Manganese	15	.054	1.9		
Molybdenum	10	.39	.39		
Nickel	40	.69	1.4		
Potassium	5000	39	45		
Selenium	5.0	1.5	1.5		
Silver	10	1.2	1.2		
Sodium	5000	9.2	100	0.76	<5000
Strontium	10	.061	.4	0.14	<10
Thallium	10	.67	1.2		
Tin	20	.69	2.8		
Titanium	20	.29	.3		
Vanadium	50	.3	.3		
Zinc	20	.51	3.5		

Associated samples MP14083: T69775-1

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

7.1.1  
7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T69775  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14083  
 Matrix Type: AQUEOUS

Methods: EPA 200.7  
 Units: ug/l

Prep Date: 02/28/11 02/28/11

Metal	T69775-1		QC	T69775-1		Spikelot	QC		
	Original	DUP	Limits	Original	MS	MPTW4	Limits		
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	5.1	5.0	2.0	0-20	5.1	407	400	100.5	70-130
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	116000	110000	0.9	0-20	116000	155000	50000	92.0	70-130
Strontium	404	410	1.5	0-20	404	806	200	100.6	70-130
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP14083: T69775-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.1.2  
 7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T69775  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14083  
 Matrix Type: AQUEOUS

Methods: EPA 200.7  
 Units: ug/l

Prep Date: 02/28/11

Metal	T69775-1 Original	MSD	SpikeLot MPTW4	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	5.1	401	400	99.0	1.5	20
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium	116000	153000	50000	88.0	1.3	20
Strontium	404	804	200	100.1	0.2	20
Thallium	anr					
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP14083: T69775-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.1.2  
7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T69775  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14083  
 Matrix Type: AQUEOUS

Methods: EPA 200.7  
 Units: ug/l

Prep Date: 02/28/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	396	400	99.0	85-115
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	52600	50000	105.2	85-115
Strontium	400	200	100.0	85-115
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP14083: T69775-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.1.3  
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: T69775  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

QC Batch ID: MP14083  
 Matrix Type: AQUEOUS

Methods: EPA 200.7  
 Units: ug/l

Prep Date: 02/28/11

Metal	T69775-1 Original SDL 1:5		%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	5.07	0.00	100.0(a)	0-10
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	116000	107000	1.9	0-10
Strontium	404	396	1.8	0-10
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP14083: T69775-1

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

7.1.4  
7

## General Chemistry

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### QC Data Summaries

---

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
 GENERAL CHEMISTRY

Login Number: T69775  
 Account: KLETXFW - Kleinfelder  
 Project: Colleyville

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP11910/GN29150	1.0	0.0	mg/l	1000	969	96.9	92-107%
Solids, Total Dissolved	GN29117	10	0.0	mg/l	500	496	99.2	80-120%

Associated Samples:  
 Batch GN29117: T69775-1  
 Batch GP11910: T69775-1  
 (\*) Outside of QC limits

8.1  
 8

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T69775  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP11910/GN29150	T69627-3	mg/l	1.5	1.5	0.0	0-5%
Solids, Total Dissolved	GN29117	T69549-2	mg/l	609	604	0.8	0-5%
pH	GN29075	T69775-1	su	7.92	7.93	0.1	0-6.8%

Associated Samples:  
Batch GN29075: T69775-1  
Batch GN29117: T69775-1  
Batch GP11910: T69775-1  
(\* ) Outside of QC limits

8.2

8

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T69775  
Account: KLETXFW - Kleinfelder  
Project: Colleyville

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP11910/GN29150	T69627-3	mg/l	1.5	10	11.4	99.0	81-119%

Associated Samples:

Batch GP11910: T69775-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



Misc. Forms

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Custody Documents and Other Forms

(Accutest Laboratories Southeast, Inc.)

---

Includes the following where applicable:

- Chain of Custody



**ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION**

ACCUTEST'S JOB NUMBER: T69775 CLIENT: ALGC PROJECT: T69775  
 DATE/TIME RECEIVED: 02-25-11 1015 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 7944 6464 9457

**COOLER INFORMATION**

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET
- WET ICE PRESENT

**TRIP BLANK INFORMATION**

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES? 25-GRAM \_\_\_\_\_ 5-GRAM \_\_\_\_\_  
 NUMBER OF 5035 FIELD KITS? \_\_\_\_\_  
 NUMBER OF LAB FILTERED METALS? \_\_\_\_\_

**TEMPERATURE INFORMATION**

- IR THERM ID 1 CORR. FACTOR -2
- OBSERVED TEMPS: 2.2
- CORRECTED TEMPS: 2.0

**SAMPLE INFORMATION**

- SAMPLE LABELS PRESENT ON ALL BOTTLES
- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- % SOLIDS JAR NOT RECEIVED
- 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS: no matrix on coc received water sample

TECHNICIAN SIGNATURE/DATE J.T. 02-25-11 REVIEWER SIGNATURE/DATE le 2-25-11

NF 12/10

receipt confirmation 122910.xls

9.1  
9

## GC Volatiles

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### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

**Job Number:** T69775  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF439-MB	FF10461.D	1	03/01/11	WV	n/a	n/a	GFF439

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69775-1

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

10.1.1  
10

# Blank Spike Summary

**Job Number:** T69775  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF439-BS	FF10462.D	1	03/01/11	WV	n/a	n/a	GFF439

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69775-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	94.1	87	54-149
74-84-0	Ethane	219	192	88	57-143
74-85-1	Ethene	290	252	87	57-143

10.2.1  
10

# Matrix Spike Summary

**Job Number:** T69775  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F80134-10MS	FF10477.D	1	03/01/11	WV	n/a	n/a	GFF439
F80134-10	FF10475.D	1	03/01/11	WV	n/a	n/a	GFF439

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69775-1

CAS No.	Compound	F80134-10 ug/l	Spike Q ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	0.72	108	97.5	90	54-149
74-84-0	Ethane	1.0 U	219	196	89	57-143
74-85-1	Ethene	1.0 U	290	259	89	57-143

# Duplicate Summary

**Job Number:** T69775  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** KLETXFW: Colleyville

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F80134-9DUP	FF10476.D	1	03/01/11	WV	n/a	n/a	GFF439
F80134-9	FF10474.D	1	03/01/11	WV	n/a	n/a	GFF439

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T69775-1

CAS No.	Compound	F80134-9 ug/l	DUP Q ug/l	Q RPD	Limits
74-82-8	Methane	11.0	11.0	0	24
74-84-0	Ethane	1.0 U	ND	nc	23
74-85-1	Ethene	1.0 U	ND	nc	10

10.4.1  
10

Technical Report for

Kleinfelder

Colleyville

Accutest Job Number: T70295

Sampling Date: 03/02/11

Report to:

Kleinfelder  
7805 Mesquite Bend Drive Suite 100  
Irving, TX 75063  
KMiears@kleinfelder.com

ATTN: Kyle Miears

Total number of pages in report:



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

*Paul K Canevaro*

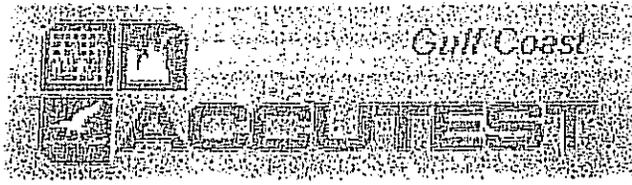
Paul Canevaro  
Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)  
OK (9103)

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Test results relate only to samples analyzed.





# *Subcontract Data*



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

**Accutest**

Certificate of Analysis Number:  
**11030138**

<b>Report To:</b> Accutest Sylvia Garza 10165 Harwin Drive Suite 150	<b>Project Name:</b> Accutest/T70295 <b>Site:</b> Houston, TX <b>Site Address:</b>
Houston TX 77036- ph: (713) 271-4700      fax: (713) 271-4770	<b>PO Number:</b> T70295 <b>State:</b> Texas <b>State Cert. No.:</b> T104704205-10-4 <b>Date Reported:</b> 3/14/2011

This Report Contains A Total Of 9 Pages

Excluding This Page, Chain Of Custody

And

Attachments

3/14/2011

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

Version 2.1 - Modified February 11, 2011



SPL ENVIRONMENTAL  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TX 77054  
 (713) 660-0901

Case Narrative for:  
**Accutest**

Certificate of Analysis Number:  
**11030138**

<u>Report To:</u>  Accutest Sylvia Garza 10165 Harwin Drive Suite 150	<u>Project Name:</u> Accutest/T70295 <u>Site:</u> Houston, TX <u>Site Address:</u>
Houston TX 77036- ph: (713) 271-4700      fax: (713) 271-4770	<u>PQ Number:</u> T70295 <u>State:</u> Texas <u>State Cert. No.:</u> T104704205-10-4 <u>Date Reported:</u> 3/14/2011

I. SAMPLE RECEIPT:

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

II: ANALYSES AND EXCEPTIONS:

No exceptions were noted.

III. GENERAL REPORTING COMMENTS:

A completed TRRP Laboratory Review Checklist (LRC) is attached to this report as Attachment A.

This report is presented in a format to meet the Texas Risk Reduction Program Rule (TRRP). The reports include a list of the Method Quantitation Limits (MQL's) for each target compound. The MQL represents the lowest non-zero standard concentration in the initial calibration curve. The Practical Quantitation Limit (PQL) represents the MQL adjusted for dilutions and moisture, if applicable. Results that are reported as ND (not detected) indicate that the compound was not identified at a concentration that is at or above the Sample Detection Limit (SDL). The SDL represents the Method Detection Limit (MDL) or the Detectability Check Standard (DCS) concentration with any adjustments for dilutions and moisture, if applicable. The SDL's are rounded based on the number of significant figures in the MDL. This accounts for any slight inconsistencies in the SDL's on the report. Any compound that was detected at a concentration that was above the SDL, but for which the concentration was less than the MQL (after adjustment for dilutions and/ or moisture), is reported as estimated (with a J qualifier). The J flags were applied to meet TRRP requirements.

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg/kg-dry " or " ug/kg-dry " ).

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

SPL Sample ID 11030138-01A (which corresponds to your sample T70295-1/79044) was selected as the matrix spike and matrix spike duplicate

11030138 Page 1

3/14/2011

Electa Brown  
 Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Case Narrative for:  
**Accutest**

---

Certificate of Analysis Number:  
**11030138**

---

sample for Semivolatile Hydrocarbons - Glycol.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

A handwritten signature in cursive script that reads 'Electa Brown'.

11030138 Page 2

3/14/2011

---

Electa Brown  
Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

Date



SPL ENVIRONMENTAL  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TX 77054  
 (713) 660-0901

**Accutest**

Certificate of Analysis Number:

**11030138**

**Report To:** Accutest  
 Sylvia Garza  
 10165 Harwin Drive Suite 150

**Project Name:** Accutest/T70295

**Site:** Houston, TX

**Site Address:**

Houston

TX

77036-

ph: (713) 271-4700

fax: (713) 271-4770

**PO Number:** T70295

**State:** Texas

**State Cert. No.:** T104704205-10-4

**Date Reported:** 3/14/2011

**Fax To:**

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
T70295-1/79044	11030138-01	Water	03/02/2011 0:00	3/4/2011 10:43:00 AM		<input type="checkbox"/>
T70295-2/79042	11030138-02	Water	03/02/2011 0:00	3/4/2011 10:43:00 AM		<input type="checkbox"/>

3/14/2011

Electa Brown  
 Project Manager

Date

Kesavalu M. Bagawandoss Ph.D., J.D.  
 Laboratory Director

Ted Yen  
 Quality Assurance Officer



SPL ENVIRONMENTAL  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TX 77054  
 (713) 660-0901

Client Sample ID: T70295-1/79044      Collected: 03/02/2011 0:00      SPL Sample ID: 11030138-01

Site: Houston, TX

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
<b>SEMIVOLATILE HYDROCARBONS - GLYCOL</b>					<b>SW8015B</b>		<b>Units: mg/L</b>		
Ethylene Glycol	1.4	J	0.56	0.56	10	10	1	03/07/11 12:36	EGU
Surr: Isobutanol	91.8		%	50-150			1	03/07/11 12:36	EGU

Qualifiers: ND/U - Not Detected Above Sample Detection Limit (SDL)      >PCL - Result exceeds Protective Concentration Limit  
 B - Analyte detected in associated Method Blank above SDL      D - Surrogate Recovery not reportable due to dilution  
 \* - Surrogate Recovery Outside QC Limits      MI - Matrix Interference  
 J - Estimated Value between SDL and MQL (PQL)      + - DCS Concentration      11030138 Page 4  
 E - Estimated Value exceeds calibration curve      PQL - Adjusted MQL      3/14/2011 3:42:34 PM  
 TNTC - Too numerous to count      Version 2.1 - Modified February 11, 2011



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 HOUSTON, TX 77054  
 (713) 660-0901

Client Sample ID: T70295-2/79042      Collected: 03/02/2011 0:00      SPL Sample ID: 11030138-02

Site: Houston, TX

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
<b>SEMIVOLATILE HYDROCARBONS - GLYCOL</b>					<b>SW8015B</b>		<b>Units: mg/L</b>		
Ethylene Glycol	ND		0.56	0.56	10	10	1	03/08/11 23:50	EGU
Surr: Isobutanol	103		%	50-150			1	03/08/11 23:50	EGU

Qualifiers: ND/U - Not Detected Above Sample Detection Limit (SDL)      >PCL - Result exceeds Protective Concentration Limit  
 B - Analyte detected in associated Method Blank above SDL      D - Surrogate Recovery not reportable due to dilution  
 \* - Surrogate Recovery Outside QC Limits      MI - Matrix Interference  
 J - Estimated Value between SDL and MQL (PQL)      + - DCS Concentration      11030138 Page 5  
 E - Estimated Value exceeds calibration curve      PQL - Adjusted MQL      3/14/2011 3:42:34 PM  
 TNTC - Too numerous to count      Version 2.1 - Modified February 11, 2011

# *Quality Control Documentation*

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SPL ENVIRONMENTAL  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TX 77054  
 (713) 660-0901

Quality Control Report

Accutest  
 Accutest/T70295

Analysis: Semivolatile Hydrocarbons - Glycol  
 Method: SW8015B

WorkOrder: 11030138  
 Lab Batch ID: R316708

Method Blank

Samples in Analytical Batch:

RunID: HP_K_110307A-5738721	Units: mg/L	<u>Lab Sample ID</u>	<u>Client Sample ID</u>
Analysis Date: 03/07/2011 11:44	Analyst: EGU	11030138-01A	T70295-1/79044
		11030138-02A	T70295-2/79042

Analyte	Result	Qual	Rep Limit	SDL	MDL/DCS
Ethylene Glycol	ND		10	0.56	0.56
Surr: Isobutanol	107.4		50-150	0	0

Laboratory Control Sample (LCS)

RunID: HP\_K\_110307A-5738720 Units: mg/L  
 Analysis Date: 03/07/2011 11:23 Analyst: EGU

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Ethylene Glycol	400	415	104		70	130
Surr: Isobutanol	200	197	98.7		50	150

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030138-01  
 RunID: HP\_K\_110307A-5738725 Units: mg/L  
 Analysis Date: 03/07/2011 13:39 Analyst: EGU

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Ethylene Glycol	1.40	J	400	313	78.0		400	352	87.6		11.6		20	60	140
Surr: Isobutanol	ND		200	198	98.9		200	204	102		3.06		20	50	150

Qualifiers: ND/U - Not Detected at the SDL  
 B - Analyte detected in associated Method Blank above SDL  
 J - Estimated Value between SDL and MQL (PQL)  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

MI - Matrix Interference  
 D - Recovery Unreportable due to Dilution  
 \* - Recovery Outside Advisable QC Limits  
 + - DCS Concentration

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

*Sample Receipt Checklist*

---

*And*

*Chain of Custody*



SPL ENVIRONMENTAL  
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 HOUSTON, TX 77054  
 (713) 660-0901

**Sample Receipt Checklist**

Workorder:	11030138	Received By:	NB
Date and Time Received:	3/4/2011 10:43:00 AM	Carrier name:	Client
Temperature:	4.0/3.0°C	Chilled by:	Water Ice

1. Shipping container/cooler in good condition? Yes  No  Not Present
2. Custody seals intact on shipping container/cooler? Yes  No  Not Present
3. Custody seals intact on sample bottles? Yes  No  Not Present
4. Chain of custody present? Yes  No
5. Chain of custody signed when relinquished and received? Yes  No
6. Chain of custody agrees with sample labels? Yes  No
7. Samples in proper container/bottle? Yes  No
8. Sample containers intact? Yes  No
9. Sufficient sample volume for indicated test? Yes  No
10. All samples received within holding time? Yes  No
11. Container/Temp Blank temperature in compliance? Yes  No
12. Water - VOA vials have zero headspace? Yes  No  VOA Vials Not Present
13. Water - Preservation checked upon receipt (except VOA\*)? Yes  No  Not Applicable

\*VOA Preservation Checked After Sample Analysis

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions:



# *DCS Methods And Analytes*

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SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

**DCS Values**

**Accutest**  
Accutest/T70295

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WorkOrder: 11030138

Method	Matrix	Analyte	Spike Amt	DCS	Units	DCS Date
SW8015B	Water	Ethylene Glycol	1	2.4366	mg/L	11/30/2010

# *Texas Certification*

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SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

**Texas Certification**

**Accutest**

Accutest/T70295

WorkOrder: 11030138

For methods and analytes for which Texas gives accreditation, the laboratory is certified for all methods, matrices and analytes in this report except for those listed below.

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*Attachment A*

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*TRRP Checklist*



LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 11030138 and laboratory batch no(s). See enclosed QC Report and consists of

This signature page, the laboratory review checklist, and the following reportable data:

- Checklist items R1 through R10 with sub-points detailing requirements for documentation, recovery, and quality control.

The Exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports.

Check, if applicable: [ ] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] \_\_\_\_\_ on \_\_\_\_\_ (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein.

Handwritten signature of Kesavalu Bagawandoss

Kesavalu Bagawandoss
Name (Printed)

Signature

Laboratory Director
Official Title (printed)

03/14/11
Date



## LABORATORY REVIEW CHECKLIST: REPORTABLE DATA

Laboratory Name: SPL Inc.		LRC Date: 03/14/11					
Project Name: Accutest/T70295		Laboratory Job Number: 11030138					
Reviewer Name:		Prep Batch Number(s): See enclosed QC report					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
R1	OI	<b>Chain-of-custody (C-O-C)</b>					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all departures from standard conditions described in an exception report?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
R2	OI	<b>Sample and quality control (QC) identification</b>					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
R3	OI	<b>Test reports</b>					
		Were samples prepared and analyzed within holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Other than those results <MQL, were all other raw values bracketed by calibration standards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were calculations checked by a peer or supervisor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all analyte identifications checked by a peer or supervisor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were sample detection limits reported for all analytes not detected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all results for soil and sediment samples reported on a dry weight basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were % moisture (or solids) reported for all soil and sediment samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		If required for the project, are TIC's reported?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
R4	O	<b>Surrogate recovery data</b>					
		Were surrogates added prior to extraction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
R5	OI	<b>Test reports/summary forms for blank samples</b>					
		Were appropriate type(s) of blanks analyzed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were blanks analyzed at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were blank concentrations <MQL?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
R6	OI	<b>Laboratory control samples (LCS):</b>					
		Were all COCs included in the LCS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were LCSs analyzed at required frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the LCSD RPD within QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
R7	OI	<b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were MS/MSD analyzed at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were MS (and MSD, if applicable) %Rs within the laboratory QC Limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were the MS/MSD RPDs within laboratory QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<sup>1</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s).  
 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## LABORATORY REVIEW CHECKLIST: REPORTABLE DATA (continued)

Laboratory Name: <b>SPL Inc.</b>		LRC Date: <b>03/14/11</b>					
Project Name: <b>Accutesh/T70295</b>		Laboratory Job Number: <b>11030138</b>					
Reviewer Name:		Prep Batch Number(s): <b>See enclosed QC report</b>					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
R8	OI	<b>Analytical duplicate data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were analytical duplicates analyzed at the appropriate frequency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were RPDs or relative standard deviations within the laboratory QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
R9	OI	<b>Method quantitation limits (MQLs):</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Are unadjusted MQLs and DCSs included in the laboratory data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
R10	OI	<b>Other problems/anomalies</b>					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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## LABORATORY REVIEW CHECKLIST: SUPPORTING DATA

Laboratory Name: <b>SPL Inc.</b>		LRC Date: <b>03/14/11</b>					
Project Name: <b>Accutest/T70295</b>		Laboratory Job Number: <b>11030138</b>					
Reviewer Name:		Prep Batch Number(s): <b>See enclosed QC report</b>					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
S1	OI	<b>Initial calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were percent RSDs or correlation coefficient criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the number of standards recommended in the method used for all analytes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all points generated between the lowest and highest standard used to calculate the curve?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Are ICAL data available for all instruments used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Has the initial calibration curve been verified using an appropriate second source standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S2	OI	<b>Initial and continuing calibration verification (ICCV AND CCV) and continuing calibration blank (CCB):</b>					
		Was the CCV analyzed at the method-required frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were percent differences for each analyte within the method-required QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the ICAL curve verified for each analyte?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S3	O	<b>Mass spectral tuning</b>					
		Was the appropriate compound for the method used for tuning?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were ion abundance data within the method-required QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S4	O	<b>Internal standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S5	OI	<b>Raw data (NELAC Section 5.5.10)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were data associated with manual integrations flagged on the raw data?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S6	O	<b>Dual column confirmation</b>					
		Did dual column confirmation results meet the method-required QC?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S7	O	<b>Tentatively identified compounds (TICs):</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S8	I	<b>Interference Check Sample (ICS) results</b>					
		Were percent recoveries within method QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S9	I	<b>Serial dilutions, post digestion spikes, and method of standard additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S10	OI	<b>Method detection limit (MDL) studies</b>					
		Was a MDL study performed for each reported analyte?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Is the MDL either adjusted or supported by the analysis of DCSs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S11	OI	<b>Proficiency test reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S12	OI	<b>Standards documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate source?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



### LABORATORY REVIEW CHECKLIST: SUPPORTING DATA (continued)

Laboratory Name: SPL Inc.		LRC Date: 03/14/11					
Project Name: Accutest/T70295		Laboratory Job Number: 11030138					
Reviewer Name:		Prep Batch Number(s): See enclosed QC report					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
S13	OI	<b>Compound/analyte identification procedures</b>					
		Are the procedures for compound/analyte identification documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S14	OI	<b>Demonstration of analyst competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Is documentation of the analyst's competency up-to-date and on file?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S15	OI	<b>Verification/validation documentation for methods (NELAC Chapter 5)</b>					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S16	OI	<b>Laboratory standard operating procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

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<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## LABORATORY REVIEW CHECKLIST: Exception Reports

Laboratory Name:	SPL Inc.	LRC Date:	03/14/11
Project Name:	Accutes/170295	Laboratory Job Number:	11030138
Reviewer Name:		Prep Batch Number(s):	See enclosed QC report
ER# <sup>1</sup>	Description		

<sup>1</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s).  
Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Accutest

Certificate of Analysis Number:

**11020523**

<b><u>Report To:</u></b>  Accutest Sylvia Garza 10165 Harwin Drive Suite 150  Houston TX 77036- ph: (713) 271-4700      fax: (713) 271-4770	<b><u>Project Name:</u></b> Accutest T69775-1/10 <b><u>Site:</u></b> Houston, TX <b><u>Site Address:</u></b>  <b><u>PO Number:</u></b> <b><u>State:</u></b> Texas <b><u>State Cert. No.:</u></b> T104704205-10-4 <b><u>Date Reported:</u></b> 3/15/2011
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This Report Contains A Total Of 8 Pages

Excluding This Page, Chain Of Custody

And

Attachments

3/15/2011

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

Version 2.1 - Modified February 11, 2011



**SPL ENVIRONMENTAL**  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TX 77054  
 (713) 660-0901

**Case Narrative for:  
 Accutest**

**Certificate of Analysis Number:  
 11020523**

<p><b>Report To:</b>   <b>Accutest</b>  <b>Sylvia Garza</b>  <b>10165 Harwin Drive Suite 150</b>   <b>Houston</b>  <b>TX</b>  <b>77036-</b>  <b>ph: (713) 271-4700      fax: (713) 271-4770</b></p>	<p><b>Project Name:</b>      <b>Accutest T69775-1/10</b>  <b>Site:</b>                      <b>Houston, TX</b>  <b>Site Address:</b>   <b>PO Number:</b>  <b>State:</b>                      <b>Texas</b>  <b>State Cert. No.:</b>      <b>T104704205-10-4</b>  <b>Date Reported:</b>      <b>3/15/2011</b></p>
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**I. SAMPLE RECEIPT:**

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

**II: ANALYSES AND EXCEPTIONS:**

No exceptions were noted.

**III. GENERAL REPORTING COMMENTS:**

A completed TRRP Laboratory Review Checklist (LRC) is attached to this report as Attachment A.

This report is presented in a format to meet the Texas Risk Reduction Program Rule (TRRP). The reports include a list of the Method Quantitation Limits (MQL's) for each target compound. The MQL represents the lowest non-zero standard concentration in the initial calibration curve. The Practical Quantitation Limit (PQL) represents the MQL adjusted for dilutions and moisture, if applicable. Results that are reported as ND (not detected) indicate that the compound was not identified at a concentration that is at or above the Sample Detection Limit (SDL). The SDL represents the Method Detection Limit (MDL) or the Detectability Check Standard (DCS) concentration with any adjustments for dilutions and moisture, if applicable. The SDL's are rounded based on the number of significant figures in the MDL. This accounts for any slight inconsistencies in the SDL's on the report. Any compound that was detected at a concentration that was above the SDL, but for which the concentration was less than the MQL (after adjustment for dilutions and/ or moisture), is reported as estimated (with a J qualifier). The J flags were applied to meet TRRP requirements.

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg/kg-dry " or " ug/kg-dry " ).

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).



11020523 Page 1

3/15/2011

Electa Brown  
 Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.



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8880 INTERCHANGE DRIVE  
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(713) 660-0901

**Case Narrative for:  
Accutest**

---

**Certificate of Analysis Number:  
11020523**

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Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

A handwritten signature in blue ink that reads 'Electa Brown'.

11020523 Page 2

3/15/2011

Electa Brown  
Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.



SPL ENVIRONMENTAL  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TX 77054  
 (713) 660-0901

**Accutest**

**Certificate of Analysis Number:**

**11020523**

**Report To:** Accutest  
 Sylvia Garza  
 10165 Harwin Drive Suite 150

Houston  
 TX  
 77036-  
 ph: (713) 271-4700 fax: (713) 271-4770

**Fax To:**

**Project Name:** Accutest T69775-1/10

**Site:** Houston, TX

**Site Address:**

**PO Number:**

**State:** Texas

**State Cert. No.:** T104704205-10-4

**Date Reported:** 3/15/2011

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
T69775-1/10	11020523-01	Water	02/22/2011 0:00	2/25/2011 5:45:00 PM		<input type="checkbox"/>

Electa Brown  
 Project Manager

3/15/2011

Date

Kesavalu M. Bagawandoss Ph.D., J.D.  
 Laboratory Director

Ted Yen  
 Quality Assurance Officer



# *Quality Control Documentation*

**Quality Control Report**

**Accutest**

Accutest T69775-1/10

**Analysis:** Semivolatile Hydrocarbons - Glycol  
**Method:** SW8015B

**WorkOrder:** 11020523  
**Lab Batch ID:** R316458

**Method Blank**

**Samples in Analytical Batch:**

RunID: HP\_K\_110228A-5735079 Units: mg/L  
Analysis Date: 02/28/2011 15:21 Analyst: EGU

**Lab Sample ID**      **Client Sample ID**  
11020523-01A      T69775-1/10

Analyte	Result	Qual	Rep Limit	SDL	MDL/DCS
Ethylene Glycol	ND		10	0.56	0.56
Surr: Isobutanol	105.9		50-150	0	0

**Laboratory Control Sample (LCS)**

RunID: HP\_K\_110228A-5735078 Units: mg/L  
Analysis Date: 02/28/2011 15:00 Analyst: EGU

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Ethylene Glycol	400	422	105		70	130
Surr: Isobutanol	200	194	97.0		50	150

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Sample Spiked: 11020523-01  
RunID: HP\_K\_110228A-5735081 Units: mg/L  
Analysis Date: 02/28/2011 16:14 Analyst: EGU

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Ethylene Glycol	2.98	J	400	335	82.9		400	354	87.7		5.54		20	60	140
Surr: Isobutanol	ND		200	202	101		200	201	100		0.589		20	50	150

**Qualifiers:** ND/U - Not Detected at the SDL      MI - Matrix Interference  
B - Analyte detected in associated Method Blank above SDL      D - Recovery Unreportable due to Dilution  
J - Estimated Value between SDL and MQL (PQL)      \* - Recovery Outside Advisable QC Limits  
E - Estimated Value exceeds calibration curve      + - DCS Concentration  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

*Sample Receipt Checklist  
And  
Chain of Custody*



**SPL ENVIRONMENTAL**  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TX 77054  
 (713) 660-0901

**Sample Receipt Checklist**

Workorder:	11020523	Received By:	T_B
Date and Time Received:	2/25/2011 5:45:00 PM	Carrier name:	Client
Temperature:	2.5/2.5°C	Chilled by:	Water Ice

- |   |   |                             |  |
|---|---|-----------------------------|--|
| <b>1. Shipping container/cooler in good condition?</b>              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>               |
| <b>2. Custody seals intact on shipping container/cooler?</b>        | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>3. Custody seals intact on sample bottles?</b>                   | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>4. Chain of custody present?</b>                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>5. Chain of custody signed when relinquished and received?</b>   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>6. Chain of custody agrees with sample labels?</b>               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>7. Samples in proper container/bottle?</b>                       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>8. Sample containers intact?</b>                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>9. Sufficient sample volume for indicated test?</b>              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>10. All samples received within holding time?</b>                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>11. Container/Temp Blank temperature in compliance?</b>          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| <b>12. Water - VOA vials have zero headspace?</b>                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | VOA Vials Not Present <input type="checkbox"/>     |
| <b>13. Water - Preservation checked upon receipt (except VOA*)?</b> | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |

\*VOA Preservation Checked After Sample Analysis

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions:



# *DCS Methods And Analytes*



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

**DCS Values**

**Accutest**

Accutest T69775-1/10

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WorkOrder: 11020523

Method	Matrix	Analyte	Spike Amt	DCS	Units	DCS Date
SW8015B	Water	Ethylene Glycol	1	2.4366	mg/L	11/30/2010

# *Texas Certification*



**SPL ENVIRONMENTAL**  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

**Texas Certification**

**Accutest**

**Accutest T69775-1/10**

**WorkOrder: 11020523**

For methods and analytes for which Texas gives accreditation, the laboratory is certified for all methods, matrices and analytes in this report except for those listed below.

*Attachment A*  
*TRRP Checklist*



**LABORATORY DATA PACKAGE COVER PAGE**

This data package is for Job No. 11020523 and laboratory batch no(s). See enclosed QC Report and consists of

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC Chapter 5,
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQL's) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

**Check, if applicable:**  This laboratory meets an exception under 30 TAC §25.6 and was last inspected by  TCEQ or  \_\_\_\_\_ on \_\_\_\_\_ (**enter date of last inspection**). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Ted Yen  
Name (Printed)

Signature

QA/QC Officer  
Official Title (printed)

03/15/11  
Date



## LABORATORY REVIEW CHECKLIST: REPORTABLE DATA

Laboratory Name: <b>SPL Inc.</b>		LRC Date: <b>03/15/11</b>					
Project Name: <b>Accutest T69775-1/10</b>		Laboratory Job Number: <b>11020523</b>					
Reviewer Name: <b>E. Sommers</b>		Prep Batch Number(s): <b>See enclosed QC report</b>					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
<b>R1</b>	<b>OI</b>	<b>Chain-of-custody (C-O-C)</b>					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all departures from standard conditions described in an exception report?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R2</b>	<b>OI</b>	<b>Sample and quality control (QC) identification</b>					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R3</b>	<b>OI</b>	<b>Test reports</b>					
		Were samples prepared and analyzed within holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Other than those results <MQL, were all other raw values bracketed by calibration standards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were calculations checked by a peer or supervisor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all analyte identifications checked by a peer or supervisor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were sample detection limits reported for all analytes not detected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all results for soil and sediment samples reported on a dry weight basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were % moisture (or solids) reported for all soil and sediment samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		If required for the project, are TIC's reported?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>R4</b>	<b>O</b>	<b>Surrogate recovery data</b>					
		Were surrogates added prior to extraction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R5</b>	<b>OI</b>	<b>Test reports/summary forms for blank samples</b>					
		Were appropriate type(s) of blanks analyzed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were blanks analyzed at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were blank concentrations <MQL?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R6</b>	<b>OI</b>	<b>Laboratory control samples (LCS):</b>					
		Were all COCs included in the LCS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were LCSs analyzed at required frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the LCSD RPD within QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>R7</b>	<b>OI</b>	<b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were MS/MSD analyzed at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were MS (and MSD, if applicable) %Rs within the laboratory QC Limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were the MS/MSD RPDs within laboratory QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<sup>1</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s).

Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## LABORATORY REVIEW CHECKLIST: REPORTABLE DATA (continued)

Laboratory Name: <b>SPL Inc.</b>		LRC Date: <b>03/15/11</b>					
Project Name: <b>Accutest T69775-1/10</b>		Laboratory Job Number: <b>11020523</b>					
Reviewer Name: <b>E. Sommers</b>		Prep Batch Number(s): <b>See enclosed QC report</b>					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
<b>R8</b>	<b>OI</b>	<b>Analytical duplicate data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were analytical duplicates analyzed at the appropriate frequency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were RPDs or relative standard deviations within the laboratory QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>R9</b>	<b>OI</b>	<b>Method quantitation limits (MQLs):</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Are unadjusted MQLs and DCSs included in the laboratory data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R10</b>	<b>OI</b>	<b>Other problems/anomalies</b>					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<sup>1</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s).

Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## LABORATORY REVIEW CHECKLIST: SUPPORTING DATA

Laboratory Name: <b>SPL Inc.</b>		LRC Date: <b>03/15/11</b>					
Project Name: <b>Accutest T69775-1/10</b>		Laboratory Job Number: <b>11020523</b>					
Reviewer Name: <b>E. Sommers</b>		Prep Batch Number(s): <b>See enclosed QC report</b>					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
<b>S1</b>	<b>OI</b>	<b>Initial calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were percent RSDs or correlation coefficient criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the number of standards recommended in the method used for all analytes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all points generated between the lowest and highest standard used to calculate the curve?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Are ICAL data available for all instruments used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Has the initial calibration curve been verified using an appropriate second source standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S2</b>	<b>OI</b>	<b>Initial and continuing calibration verification (ICCV AND CCV) and continuing calibration blank (CCB):</b>					
		Was the CCV analyzed at the method-required frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were percent differences for each analyte within the method-required QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the ICAL curve verified for each analyte?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S3</b>	<b>O</b>	<b>Mass spectral tuning</b>					
		Was the appropriate compound for the method used for tuning?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were ion abundance data within the method-required QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S4</b>	<b>O</b>	<b>Internal standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S5</b>	<b>OI</b>	<b>Raw data (NELAC Section 5.5.10)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were data associated with manual integrations flagged on the raw data?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S6</b>	<b>O</b>	<b>Dual column confirmation</b>					
		Did dual column confirmation results meet the method-required QC?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S7</b>	<b>O</b>	<b>Tentatively identified compounds (TICs):</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S8</b>	<b>I</b>	<b>Interference Check Sample (ICS) results</b>					
		Were percent recoveries within method QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S9</b>	<b>I</b>	<b>Serial dilutions, post digestion spikes, and method of standard additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S10</b>	<b>OI</b>	<b>Method detection limit (MDL) studies</b>					
		Was a MDL study performed for each reported analyte?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Is the MDL either adjusted or supported by the analysis of DCSs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S11</b>	<b>OI</b>	<b>Proficiency test reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S12</b>	<b>OI</b>	<b>Standards documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate source?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<sup>1</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s).  
Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## LABORATORY REVIEW CHECKLIST: SUPPORTING DATA (continued)

Laboratory Name: <b>SPL Inc.</b>		LRC Date: <b>03/15/11</b>					
Project Name: <b>Accutest T69775-1/10</b>		Laboratory Job Number: <b>11020523</b>					
Reviewer Name: <b>E. Sommers</b>		Prep Batch Number(s): <b>See enclosed QC report</b>					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
<b>S13</b>	<b>OI</b>	<b>Compound/analyte identification procedures</b>					
		Are the procedures for compound/analyte identification documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S14</b>	<b>OI</b>	<b>Demonstration of analyst competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S15</b>	<b>OI</b>	<b>Verification/validation documentation for methods (NELAC Chapter 5)</b>					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S16</b>	<b>OI</b>	<b>Laboratory standard operating procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<sup>1</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s).  
Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## LABORATORY REVIEW CHECKLIST: Exception Reports

Laboratory Name:	SPL Inc.	LRC Date:	03/15/11
Project Name:	Accutest T69775-1/10	Laboratory Job Number:	11020523
Reviewer Name:	E. Sommers	Prep Batch Number(s):	See enclosed QC report
ER#	Description		

<sup>1</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s).

Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



SPL ENVIRONMENTAL  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TX 77054  
 (713)660-0901

**Accutest**

**Certificate of Analysis Number:**

**11020538**

<p><b><u>Report To:</u></b></p> <p>Accutest          Sylvia Garza          10165 Harwin Drive Suite 150</p> <p>Houston          TX          77036-          ph: (713)271-4700      fax: (713)271-4770</p>	<p><b><u>Project Name:</u></b>      Accutest/T69660</p> <p><b><u>Site:</u></b>                  Houston, TX</p> <p><b><u>Site Address:</u></b></p> <p><b><u>PO Number:</u></b></p> <p><b><u>State:</u></b>                  Texas</p> <p><b><u>State Cert. No.:</u></b>      T104704205-10-4</p> <p><b><u>Date Reported:</u></b>      3/11/2011</p>
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This Report Contains A Total Of 10 Pages

Excluding This Page, Chain Of Custody

And

Attachments

3/11/2011

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

Version 2.1 - Modified February 11, 2011



SPL ENVIRONMENTAL  
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 HOUSTON, TX 77054  
 (713)660-0901

**Case Narrative for:  
 Accutest**

**Certificate of Analysis Number:  
 11020538**

<p><b>Report To:</b>           Accutest          Sylvia Garza          10165 Harwin Drive Suite 150           Houston          TX          77036-          ph: (713)271-4700      fax: (713)271-4770</p>	<p><b>Project Name:</b>      Accutest/T69660  <b>Site:</b>                      Houston, TX  <b>Site Address:</b>   <b>PO Number:</b>  <b>State:</b>                      Texas  <b>State Cert. No.:</b>      T104704205-10-4  <b>Date Reported:</b>      3/11/2011</p>
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**I. SAMPLE RECEIPT:**

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

The samples were received at 15.0 degrees Celsius. The laboratory performed the requested analysis per your phone conversation with Elessa Sommers on February 28, 2011.

**II: ANALYSES AND EXCEPTIONS:**

No exceptions were noted.

**III. GENERAL REPORTING COMMENTS:**

A completed TRRP Laboratory Review Checklist (LRC) is attached to this report as Attachment A.

This report is presented in a format to meet the Texas Risk Reduction Program Rule (TRRP). The reports include a list of the Method Quantitation Limits (MQL's) for each target compound. The MQL represents the lowest non-zero standard concentration in the initial calibration curve. The Practical Quantitation Limit (PQL) represents the MQL adjusted for dilutions and moisture, if applicable. Results that are reported as ND (not detected) indicate that the compound was not identified at a concentration that is at or above the Sample Detection Limit (SDL). The SDL represents the Method Detection Limit (MDL) or the Detectability Check Standard (DCS) concentration with any adjustments for dilutions and moisture, if applicable. The SDL's are rounded based on the number of significant figures in the MDL. This accounts for any slight inconsistencies in the SDL's on the report. Any compound that was detected at a concentration that was above the SDL, but for which the concentration was less than the MQL (after adjustment for dilutions and/or moisture), is reported as estimated (with a J qualifier). The J flags were applied to meet TRRP requirements.

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent

11020538 Page 1  
 3/11/2011

Electa Brown  
 Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

Date



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8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713)660-0901

Case Narrative for:  
**Accutest**

---

Certificate of Analysis Number:  
**11020538**

---

recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

A handwritten signature in cursive script that reads 'Electa Brown'.

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3/11/2011

---

Electa Brown  
Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

Date

**Accutest**

**Certificate of Analysis Number:**

**11020538**

**Report To:** Accutest  
Sylvia Garza  
10165 Harwin Drive Suite 150

Houston  
TX  
77036-  
ph: (713) 271-4700 fax: (713) 271-4770

**Fax To:**

**Project Name:** Accutest/T69660

**Site:** Houston, TX

**Site Address:**

**PO Number:**

**State:** Texas

**State Cert. No.:** T104704205-10-4

**Date Reported:** 3/11/2011

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
T69660-1/74417	11020538-01	Water	02/22/2011 0:00	2/28/2011 9:12:00 AM		<input type="checkbox"/>
T69660-2/7	11020538-02	Water	02/22/2011 0:00	2/28/2011 9:12:00 AM		<input type="checkbox"/>
T69660-3/1633	11020538-03	Water	02/22/2011 0:00	2/28/2011 9:12:00 AM		<input type="checkbox"/>



Electa Brown  
Project Manager

3/11/2011

Date

Kesavalu M. Bagawandoss Ph.D., J.D.  
Laboratory Director

Ted Yen  
Quality Assurance Officer



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 HOUSTON, TX 77054  
 (713)660-0901

Client Sample ID: T69660-1/74417      Collected: 02/22/2011 0:00      SPL Sample ID: 11020538-01

Site: Houston, TX

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
<b>SEMIVOLATILE HYDROCARBONS - GLYCOL</b>					<b>SW8015B</b>		<b>Units: mg/L</b>		
EthyleneGlycol	2.3	J	0.56	0.56	10	10	1	03/05/112:26	EGU
Surr:Isobutanol	100		%	50-150			1	03/05/112:26	EGU

**Qualifiers:** ND/U - Not Detected Above Sample Detection Limit (SDL)      >PCL - Result exceeds Protective Concentration Limit  
 B - Analyte detected in associated Method Blank above SDL      D - Surrogate Recovery not reportable due to dilution  
 \* - Surrogate Recovery Outside QC Limits      MI - Matrix Interference  
 J - Estimated Value between SDL and MQL (PQL)      + - DCS Concentration      11020538 Page 4  
 E - Estimated Value exceeds calibration curve      PQL - Adjusted MQL      3/11/2011 5:29:35 PM  
 TNTC - Too numerous to count      Version 2.1 - Modified February 11, 2011



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 HOUSTON, TX 77054  
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Client Sample ID: T69660-2/7      Collected: 02/22/2011 0:00      SPL Sample ID: 11020538-02

Site: Houston, TX

Analyses/Method	Result	QUAL	SDL	MDL/DCS	MQL	PQL	DF	Date Analyzed	Analyst
<b>SEMIVOLATILE HYDROCARBONS - GLYCOL</b>					<b>SW8015B</b>		<b>Units: mg/L</b>		
Ethylene Glycol	ND		0.56	0.56	10	10	1	03/05/112:48	EGU
Surr: Isobutanol	85.9		%	50-150			1	03/05/112:48	EGU

**Qualifiers:** ND/U - Not Detected Above Sample Detection Limit (SDL)      >PCL - Result exceeds Protective Concentration Limit  
 B - Analyte detected in associated Method Blank above SDL      D - Surrogate Recovery not reportable due to dilution  
 \* - Surrogate Recovery Outside QC Limits      MI - Matrix Interference  
 J - Estimated Value between SDL and MQL (PQL)      + - DCS Concentration      11020538 Page 5  
 E - Estimated Value exceeds calibration curve      PQL - Adjusted MQL      3/11/2011 5:29:35 PM  
 TNTC - Too numerous to count      Version 2.1 - Modified February 11, 2011



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Client Sample ID: T69660-3/1633      Collected: 02/22/2011 0:00      SPL Sample ID: 11020538-03

Site: Houston, TX

Analyses/Method	Result	QUAL	SDL	MDL/DCS	ML	PQL	DF	Date Analyzed	Analyst
<b>SEMIVOLATILE HYDROCARBONS - GLYCOL</b>					<b>SW8015B</b>		<b>Units: mg/L</b>		
Ethylene Glycol	ND		0.56	0.56	10	10	1	03/05/113:09	EGU
Surr: Isobutanol	83.7		%	50-150			1	03/05/113:09	EGU

**Qualifiers:**

ND/U - Not Detected Above Sample Detection Limit (SDL)	>PCL - Result exceeds Protective Concentration Limit
B - Analyte detected in associated Method Blank above SDL	D - Surrogate Recovery not reportable due to dilution
* - Surrogate Recovery Outside QC Limits	MI - Matrix Interference
J - Estimated Value between SDL and MQL (PQL)	+ - DCS Concentration
E - Estimated Value exceeds calibration curve	PQL - Adjusted MQL
TNTC - Too numerous to count	

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 3/11/2011 5:29:35 PM  
 Version 2.1 - Modified February 11, 2011

# *Quality Control Documentation*

**Quality Control Report**

**Accutest**  
Accutest/T69660

**Analysis:** Semivolatile Hydrocarbons - Glycol  
**Method:** SW8015B

**WorkOrder:** 11020538  
**Lab Batch ID:** R316668

**Method Blank**

RunID: HP\_K\_110305A-5738295 Units: mg/L  
Analysis Date: 03/05/2011 12:05 Analyst: EGU

**Samples in Analytical Batch:**

Lab Sample ID	Client Sample ID
11020538-01A	T69660-1/74417
11020538-02A	T69660-2/7
11020538-03A	T69660-3/1633

Analyte	Result	Qual	Rep Limit	SDL	MDL/DCS
Ethylene Glycol	ND		10	0.56	0.56
Surr: Isobutanol	105.9		50-150	0	0

**Laboratory Control Sample (LCS)**

RunID: HP\_K\_110305A-5738294 Units: mg/L  
Analysis Date: 03/05/2011 11:44 Analyst: EGU

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Ethylene Glycol	400	446	112		70	130
Surr: Isobutanol	200	198	99.0		50	150

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Sample Spiked: 11020538-01  
RunID: HP\_K\_110305A-5738302 Units: mg/L  
Analysis Date: 03/05/2011 14:33 Analyst: EGU

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Ethylene Glycol	2.28	J	400	402	99.9		400	419	104		4.22		20	60	140
Surr: Isobutanol	ND		200	204	102		200	200	99.9		1.82		20	50	150

**Qualifiers:** ND/U - Not Detected at the SDL  
B - Analyte detected in associated Method Blank above SDL  
J - Estimated Value between SDL and MQL (PQL)  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits  
+ - DCS Concentration

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

*Sample Receipt Checklist  
And  
Chain of Custody*



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 HOUSTON, TX 77054  
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**Sample Receipt Checklist**

Workorder:	11020538	ReceivedBy:	NB
Date and Time Received:	2/28/2011 9:12:00 AM	Carriername:	Fedex-Priority
Temperature:	15.0/15.0°C	Chilled by:	Water Ice

1. Shipping container/cooler in good condition? Yes  No  NotPresent
2. Custody seals intact on shipping container/cooler? Yes  No  NotPresent
3. Custody seals intact on sample bottles? Yes  No  NotPresent
4. Chain of custody present? Yes  No
5. Chain of custody signed when relinquished and received? Yes  No
6. Chain of custody agrees with sample labels? Yes  No
7. Samples in proper container/bottle? Yes  No
8. Sample containers intact? Yes  No
9. Sufficient sample volume for indicated test? Yes  No
10. All samples received within holding time? Yes  No
11. Container/Temp Blank temperature in compliance? Yes  No   
 1. Samples were received out of temperature compliance.
12. Water - VOA vials have zero headspace? Yes  No  VOA Vials Not Present
13. Water - Preservation checked upon receipt (except VOA\*)? Yes  No  NotApplicable

\*VOA Preservation Checked After Sample Analysis

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions:

# *DCS Methods And Analytes*



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

**DCS Values**

**Accutest**

Accutest/T69660

WorkOrder: 11020538

Method	Matrix	Analyte	Spike Amt	DCS	Units	DCS Date
SW8015B	Water	EthyleneGlycol	1	2.4366	mg/L	11/30/2010

# *Texas Certification*



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

**Texas Certification**

**Accutest**  
Accutest/T69660

**WorkOrder: 11020538**

For methods and analytes for which Texas gives accreditation, the laboratory is certified for all methods, matrices and analytes in this report except for those listed below.



# SUBCONTRACT COC

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>11020538</b>

Client Information				Subcontract Information										Requested Analyses										Matrix Codes
Company Name Accutest Gulf Coast				Subcontract Laboratory SPL										Ethylene Glycol (8015)										DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge OT - Oil LIQ - Liquid SOL - Other Solid
Project Contact Sylvia Garza Address 10165 Harwin Dr, Suite 150 City Houston State TX Zip 77036 Phone No. 713-271-4700				Laboratory Contact Sample Receiving Address 8880 Interchange Drive City Houston, TX State TX Zip 77054 Phone No. 713-660-0901 PO# T69660																				
Email sylvia.g@accutest.com				Email																				
City Houston State TX Zip 77036				City Houston, TX State TX Zip 77054																				
Phone No. 713-271-4700				Phone No. 713-660-0901 PO# T69660																				
Accutest Sample Number		Collection		Matrix	# of bottles	Number of preserved bottles										LAB USE ONLY								
		Date	Time			TC	NOH	HNO3	H2SO4	DI/NOH	TSP	NOX	OTHER											
T69660-1 / 74417		2/22/2011		GW	3	X											X							
T69660-2 / 7		2/22/2011		GW	3	X											X							
T69660-3 / 1633		2/22/2011		GW	3	X											X							

Turnaround Time ( Business days)		Data Deliverable Information										Comments / Remarks											
<input type="checkbox"/> STANDARD <input type="checkbox"/> 7 Day <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> Other		Approved By/ Date:  MARCH 3rd		<input type="checkbox"/> Commercial "A" <input checked="" type="checkbox"/> Commercial "B" <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> Full Data Package <input checked="" type="checkbox"/> TRRP-13 <input type="checkbox"/> EDD Format <input type="checkbox"/> Other																			
Real time analytical data available via Lablink		Commercial "A" = Results Only Commercial "B" = Results & Standard QC																					

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sample # 1	Date Time: 2/24/11 1700	Received By: 1	Relinquished By: 2	Date Time:	Received By: 2	
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4	
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable <input type="checkbox"/>	On Ice <input type="checkbox"/>	Cooler Temp

*Attachment A*

*TRRP Checklist*



LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 11020538 and laboratory batch no(s). See enclosed QC Report and consists of

This signature page, the laboratory review checklist, and the following reportable data:

- Checklist items R1 through R10 with sub-points (a-e) detailing requirements for field documentation, sample identification, test reports, surrogate recovery, blank samples, control samples, matrix spikes, and analytical duplicates.

The Exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports.

Check, if applicable: [ ] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] \_\_\_\_\_ on \_\_\_\_\_ (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein.

Kesavalu Bagawandoss
Name (Printed)

Signature

Laboratory Director
Official Title (printed)

03/14/11
Date



## LABORATORY REVIEW CHECKLIST: REPORTABLE DATA

Laboratory Name: <b>SPL Inc.</b>		LRC Date: <b>03/14/11</b>					
Project Name: <b>Accutest/T69660</b>		Laboratory Job Number: <b>11020538</b>					
Reviewer Name: <b>Electa Brown</b>		Prep Batch Number(s): <b>See enclosed QC report</b>					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
<b>R1</b>	<b>OI</b>	<b>Chain-of-custody (C-O-C)</b>					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0538-1
		Were all departures from standard conditions described in an exception report?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R2</b>	<b>OI</b>	<b>Sample and quality control (QC) identification</b>					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R3</b>	<b>OI</b>	<b>Test reports</b>					
		Were samples prepared and analyzed within holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Other than those results <MQL, were all other raw values bracketed by calibration standards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were calculations checked by a peer or supervisor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all analyte identifications checked by a peer or supervisor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were sample detection limits reported for all analytes not detected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all results for soil and sediment samples reported on a dry weight basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were % moisture (or solids) reported for all soil and sediment samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		If required for the project, are TIC's reported?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>R4</b>	<b>O</b>	<b>Surrogate recovery data</b>					
		Were surrogates added prior to extraction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R5</b>	<b>OI</b>	<b>Test reports/summary forms for blank samples</b>					
		Were appropriate type(s) of blanks analyzed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were blanks analyzed at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were blank concentrations <MQL?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R6</b>	<b>OI</b>	<b>Laboratory control samples (LCS):</b>					
		Were all COCs included in the LCS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were LCSs analyzed at required frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the LCSD RPD within QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>R7</b>	<b>OI</b>	<b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were MS/MSD analyzed at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were MS (and MSD, if applicable) %Rs within the laboratory QC Limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were the MS/MSD RPDs within laboratory QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

<sup>4</sup> NR = Not reviewed;

<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## LABORATORY REVIEW CHECKLIST: REPORTABLE DATA (continued)

Laboratory Name: <b>SPL Inc.</b>		LRC Date: <b>03/14/11</b>					
Project Name: <b>Accutest/T69660</b>		Laboratory Job Number: <b>11020538</b>					
Reviewer Name: <b>Electa Brown</b>		Prep Batch Number(s): <b>See enclosed QC report</b>					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
<b>R8</b>	<b>OI</b>	<b>Analytical duplicate data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were analytical duplicates analyzed at the appropriate frequency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were RPDs or relative standard deviations within the laboratory QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>R9</b>	<b>OI</b>	<b>Method quantitation limits (MQLs):</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Are unadjusted MQLs and DCSs included in the laboratory data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>R10</b>	<b>OI</b>	<b>Other problems/anomalies</b>					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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## LABORATORY REVIEW CHECKLIST: SUPPORTING DATA

Laboratory Name: <b>SPL Inc.</b>		LRC Date: <b>03/14/11</b>					
Project Name: <b>Accutest/T69660</b>		Laboratory Job Number: <b>11020538</b>					
Reviewer Name: <b>Electa Brown</b>		Prep Batch Number(s): <b>See enclosed QC report</b>					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
<b>S1</b>	<b>OI</b>	<b>Initial calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were percent RSDs or correlation coefficient criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the number of standards recommended in the method used for all analytes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were all points generated between the lowest and highest standard used to calculate the curve?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Are ICAL data available for all instruments used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Has the initial calibration curve been verified using an appropriate second source standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S2</b>	<b>OI</b>	<b>Initial and continuing calibration verification (ICCV AND CCV) and continuing calibration blank (CCB):</b>					
		Was the CCV analyzed at the method-required frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were percent differences for each analyte within the method-required QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the ICAL curve verified for each analyte?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S3</b>	<b>O</b>	<b>Mass spectral tuning</b>					
		Was the appropriate compound for the method used for tuning?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Were ion abundance data within the method-required QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S4</b>	<b>O</b>	<b>Internal standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S5</b>	<b>OI</b>	<b>Raw data (NELAC Section 5.5.10)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Were data associated with manual integrations flagged on the raw data?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S6</b>	<b>O</b>	<b>Dual column confirmation</b>					
		Did dual column confirmation results meet the method-required QC?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S7</b>	<b>O</b>	<b>Tentatively identified compounds (TICs):</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S8</b>	<b>I</b>	<b>Interference Check Sample (ICS) results</b>					
		Were percent recoveries within method QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S9</b>	<b>I</b>	<b>Serial dilutions, post digestion spikes, and method of standard additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>S10</b>	<b>OI</b>	<b>Method detection limit (MDL) studies</b>					
		Was a MDL study performed for each reported analyte?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Is the MDL either adjusted or supported by the analysis of DCSs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S11</b>	<b>OI</b>	<b>Proficiency test reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>S12</b>	<b>OI</b>	<b>Standards documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate source?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

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## LABORATORY REVIEW CHECKLIST: SUPPORTING DATA (continued)

Laboratory Name:	SPL Inc.	LRC Date:	03/14/11				
Project Name:	Accutest/T69660	Laboratory Job Number:	11020538				
Reviewer Name:	Electa Brown	Prep Batch Number(s):	See enclosed QC report				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
S13	OI	<b>Compound/analyte identification procedures</b>					
		Are the procedures for compound/analyte identification documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S14	OI	<b>Demonstration of analyst competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Is documentation of the analyst's competency up-to-date and on file?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S15	OI	<b>Verification/validation documentation for methods (NELAC Chapter 5)</b>					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S16	OI	<b>Laboratory standard operating procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

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<sup>5</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## LABORATORY REVIEW CHECKLIST: Exception Reports

Laboratory Name: <b>SPL Inc.</b>	LRC Date: <b>03/14/11</b>
Project Name: <b>Accutest/T69660</b>	Laboratory Job Number: <b>11020538</b>
Reviewer Name: <b>Electa Brown</b>	Prep Batch Number(s): <b>See enclosed QC report</b>
ER# <sup>1</sup>	Description
0538-1	The samples were received at 15.0 degrees Celsius. The laboratory performed the requested analysis per client instructions on February 28, 2011.

<sup>1</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s).  
Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

<sup>2</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

<sup>3</sup> NA = Not applicable;

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**STATE OF TEXAS WELL REPORT for Tracking #233395**


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Owner:	<b>HILLS OF MONTICELLO HOA</b>	Owner Well #:	<b>4</b>
Address:	<b>100 ADAMS CT. COLLEYVILLE, TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>100 ADAMS CT. COLLEYVILLE, TX 76034</b>	Latitude:	<b>32° 54' 59" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 58" W</b>
Elevation:	<b>No Data</b>	GPS Brand Used:	<b>GARMIN NUVI</b>

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Type of Work:	<b>New Well</b>	Proposed Use:	<b>Irrigation</b>
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Drilling Date:	Started: <b>8/16/2010</b> Completed: <b>8/23/2010</b>
Diameter of Hole:	Diameter: <b>8.0 in From Surface To 76 ft</b>
Drilling Method:	<b>Mud Rotary</b>
Borehole Completion:	Gravel Packed From: <b>14 ft to 76 ft</b> Gravel Pack Size: <b>1/8"</b>
Annular Seal Data:	1st Interval: <b>From 00 ft to 14 ft with 10 CEMENT (#sacks and material)</b> 2nd Interval: <b>No Data</b> 3rd Interval: <b>No Data</b> Method Used: <b>POSITIVE DISPLACEMENT</b> Cemented By: <b>BARCO WELL SERVICE</b> Distance to Septic Field or other Concentrated Contamination: <b>NONE IN AREA ft</b> Distance to Property Line: <b>76 ft</b> Method of Verification: <b>TAPE</b> Approved by Variance: <b>No Data</b>
Surface Completion:	<b>Surface Sleeve Installed</b>

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Water Level:	Static level: <b>27 ft. below land surface on 8/23/2010</b> Artesian flow: <b>No Data</b>
Packers:	<b>NONE</b>
Plugging Info:	Casing or Cement/Bentonite left in well: <b>No Data</b>
Type Of Pump:	<b>Submersible</b> Depth to pump bowl: <b>50 ft</b>
Well Tests:	<b>Pump</b> Yield: <b>15 GPM with 10 ft drawdown after 72 hours</b>

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Water Quality:	Type of Water: <b>No Data</b> Depth of Strata: <b>No Data</b> Chemical Analysis Made: <b>No</b> Did the driller knowingly penetrate any strata which contained undesirable constituents: <b>No</b>
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Certification Data:	The driller certified that the driller drilled this well (or the well was drilled
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3/9/2011

Well Report: Tracking #:233395  
under the driller's direct supervision) and that each and all of the  
statements herein are true and correct. The driller understood that failure  
to complete the required items will result in the log(s) being returned for  
completion and resubmittal.

Company Information: **BARCO WELL SERVICE**  
**PO BOX 1047**  
**KELLER , TX 76244**

Driller License Number: **54174**

Licensed Well Driller Signature: **MICHAEL L. YOUNG**

Registered Driller Apprentice Signature: **AUBREY N. WILABAY**

Apprentice Registration Number: **58598**

Comments: **No Data**

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #233395) on your written request.

**Texas Department of Licensing & Regulation**  
**P.O. Box 12157**  
**Austin, TX 78711**  
**(512) 463-7880**

**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft) To (ft)	Description	Dia.	New/Used	Type	Setting From/To
00-20	RED SANDY CLAY	4 N		PVC BLANK	00-43 220 PSI
20-56	WATER SANDS/IRON ROCK LYRS	4 N		PVC SCREEN	43-53 .020"
56-70	BLUE SHALE	4 N		PVC BLANK	53-63 220 PSI
70-71	LIMESTONE	4 N		PVC SCREEN	63-73 .020"
71-76	BLUE SHALE				

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**STATE OF TEXAS WELL REPORT for Tracking #200542**


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Owner:	<b>Tom Risley</b>	Owner Well #:	<b>3</b>
Address:	<b>505 John McCain Rd Colleyville , TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>505 John McCain Rd Colleyville , TX 76034</b>	Latitude:	<b>32° 54' 40" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 36" W</b>
Elevation:	<b>634 ft.</b>	GPS Brand Used:	<b>Garmin</b>
<hr/>			
Type of Work:	<b>New Well</b>	Proposed Use:	<b>Irrigation</b>

Drilling Date:	Started: <b>11/11/2009</b> Completed: <b>11/26/2009</b>
Diameter of Hole:	Diameter: <b>8 in From Surface To 745 ft</b>
Drilling Method:	<b>Mud Rotary</b>
Borehole Completion:	Gravel Packed From: <b>745 ft to 300 ft</b> Gravel Pack Size: <b>16 mesh</b>
Annular Seal Data:	1st Interval: <b>From 0 ft to 10 ft with 2 cement (#sacks and material)</b> 2nd Interval: <b>From 10 ft to 300 ft with 15 benseal (#sacks and material)</b> 3rd Interval: <b>No Data</b> Method Used: <b>Pressure pumped in w/ trim pipe</b> Cemented By: <b>Geyer Drilling Co. Inc.</b> Distance to Septic Field or other Concentrated Contamination: <b>city sewer ft</b> Distance to Property Line: <b>24 ft</b> Method of Verification: <b>Measured</b> Approved by Variance: <b>No Data</b>
Surface Completion:	<b>Alternative Procedure Used</b>

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Water Level:	Static level: <b>590 ft. below land surface on 11/30/2009</b> Artesian flow: <b>No Data</b>
Packers:	<b>N/A</b>
Plugging Info:	Casing left in well: Cement/Bentonite left in well: From (ft) To (ft)      From (ft) To (ft) Cem/Bent      Sacks Used <b>N/A</b>
Type Of Pump:	<b>Submersible</b> Depth to pump bowl: <b>693 ft</b>
Well Tests:	<b>Bailer</b> Yield: <b>25+ GPM with 0 ft drawdown after 3 hours</b>

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Water Quality:	Type of Water: <b>Fresh</b> Depth of Strata: <b>640-----745 ft.</b> Chemical Analysis Made: <b>No</b> Did the driller knowingly penetrate any strata which contained undesirable constituents: <b>No</b>
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Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **Geyer Drilling Co. Inc.**  
**108 W. Broad St**  
**Mansfield , TX 76034**

Driller License Number: **1505**

Licensed Well Driller Signature: **R. B. Geyer**

Registered Driller Apprentice Signature: **Charlie Ford**

Apprentice Registration Number: **58340**

Comments: **No Data**

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

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Please include the report's Tracking number (Tracking #200542) on your written request.

**Texas Department of Licensing & Regulation**  
**P.O. Box 12157**  
**Austin, TX 78711**  
**(512) 463-7880**

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft)	To (ft)	Description
0-----	80-----	<b>Broken sand &amp; shale</b>
80-----	106-----	<b>Sand</b>
106-----	120-----	<b>Shale</b>
120-----	210-----	<b>Shale w/lime</b>
210-----	240-----	<b>Shale</b>
240-----	290-----	<b>Lime</b>
290-----	340-----	<b>Shale</b>
340-----	460-----	<b>Lime</b>
460-----	500-----	<b>Shale</b>
500-----	530-----	<b>Hard lime</b>
530-----	630-----	<b>Broken shale &amp; lime streaks</b>
630-----	684-----	<b>Sand</b>
684-----	694-----	<b>Sandy shale</b>
694-----	740-----	<b>Sand</b>
740-----	745-----	<b>Sandy lime</b>

Dia.	New/Used	Type	Setting From/To
4-----	<b>New</b>	<b>Steel</b>	0-----745
	<b>Torch Slotted</b>	<b>640</b>	<b>745</b>

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**STATE OF TEXAS WELL REPORT for Tracking #166665**


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Owner:	<b>TRINITY BROADCASTING NETWORK</b>	Owner Well #:	<b>4</b>
Address:	<b>7409 PLEASANT RUN ROAD COLLEYVILLE, TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>7409 PLEASANT RUN ROAD COLLEYVILLE, TX 76034</b>	Latitude:	<b>32° 54' 54" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 39" W</b>
Elevation:	<b>No Data</b>	GPS Brand Used:	<b>GARMIN NUVI</b>

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Type of Work:	<b>New Well</b>	Proposed Use:	<b>Irrigation</b>
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Drilling Date:	Started: <b>12/4/2008</b> Completed: <b>12/8/2008</b>
Diameter of Hole:	Diameter: <b>8.00 in From Surface To 117 ft</b>
Drilling Method:	<b>Mud Rotary</b>
Borehole Completion:	Gravel Packed From: <b>15 ft to 117 ft</b> Gravel Pack Size: <b>1/8"</b>
Annular Seal Data:	1st Interval: <b>From 00 ft to 15 ft with 12 CEMENT (#sacks and material)</b> 2nd Interval: <b>No Data</b> 3rd Interval: <b>No Data</b> Method Used: <b>POSITIVE DISPLACEMENT</b> Cemented By: <b>BARCO WELL SERVICE</b> Distance to Septic Field or other Concentrated Contamination: <b>NONE IN AREA ft</b> Distance to Property Line: <b>82 ft</b> Method of Verification: <b>TAPE</b> Approved by Variance: <b>No Data</b>
Surface Completion:	<b>Surface Sleeve Installed</b>

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Water Level:	Static level: <b>38 ft. below land surface on 12/10/2008</b> Artesian flow: <b>No Data</b>
Packers:	<b>NONE</b>
Plugging Info:	Casing or Cement/Bentonite left in well: <b>No Data</b>
Type Of Pump:	<b>Submersible</b> Depth to pump bowl: <b>80 ft</b>
Well Tests:	<b>Pump</b> Yield: <b>15 GPM with 30 ft drawdown after 72 hours</b>

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Water Quality:	Type of Water: <b>No Data</b> Depth of Strata: <b>No Data</b> Chemical Analysis Made: <b>No</b> Did the driller knowingly penetrate any strata which contained undesirable constituents: <b>No</b>
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Certification Data:	The driller certified that the driller drilled this well (or the well was drilled
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Well Report: Tracking #:166665  
 under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **BARCO WELL SERVICE**  
**P O BOX 1047**  
**KELLER , TX 76244**

Driller License Number: **54174**

Licensed Well Driller Signature: **MICHAEL L. YOUNG**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #166665) on your written request.

**Texas Department of Licensing & Regulation**  
**P.O. Box 12157**  
**Austin, TX 78711**  
**(512) 463-7880**

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft)	Description	Dia.	New/Used	Type	Setting From/To
00-10	RED SANDY TOPSOIL/CLAY	4 N		PVC BLANK	00-48 220 PSI
10-16	YELLOW SANDSTONE	4 N		PVC SCREEN	48-78 .020"
16-25	GRAY SHALE	4 N		PVC BLANK	78-98 220 PSI
25-96	WATER SANDS/IRON ROCK LYRS	4 N		PVC SCREEN	98-108 .020"
96-117	BLUE SHALE/LIME LYRS				

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**STATE OF TEXAS WELL REPORT for Tracking #165321**


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Owner:	<b>TRINITY BROADCASTING NETWORK</b>	Owner Well #:	<b>3</b>
Address:	<b>7409 PLEASANT RUN ROAD COLLEYVILLE, TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>7409 PLEASANT RUN ROAD COLLEYVILLE, TX 76034</b>	Latitude:	<b>32° 54' 58" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 23" W</b>
Elevation:	<b>No Data</b>	GPS Brand Used:	<b>GARMIN NUVI</b>

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Type of Work:	<b>New Well</b>	Proposed Use:	<b>Irrigation</b>
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Drilling Date:	Started: <b>11/12/2008</b> Completed: <b>11/17/2008</b>
Diameter of Hole:	Diameter: <b>8.00 in From Surface To 67 ft</b>
Drilling Method:	<b>Mud Rotary</b>
Borehole Completion:	Gravel Packed From: <b>14 ft to 67 ft</b> Gravel Pack Size: <b>1/8</b>
Annular Seal Data:	1st Interval: <b>From 00 ft to 14 ft with 12 CEMENT (#sacks and material)</b> 2nd Interval: <b>No Data</b> 3rd Interval: <b>No Data</b> Method Used: <b>POSITIVE DISPLACEMENT</b> Cemented By: <b>BARCO WELL SERVICE</b> Distance to Septic Field or other Concentrated Contamination: <b>NONE IN AREA ft</b> Distance to Property Line: <b>250 ft</b> Method of Verification: <b>ESTIMATED</b> Approved by Variance: <b>No Data</b>
Surface Completion:	<b>Surface Sleeve Installed</b>

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Water Level:	Static level: <b>19 ft. below land surface on 11/17/2008</b> Artesian flow: <b>No Data</b>
Packers:	<b>NONE</b>
Plugging Info:	Casing or Cement/Bentonite left in well: <b>No Data</b>
Type Of Pump:	<b>Submersible</b> Depth to pump bowl: <b>55 ft</b>
Well Tests:	<b>Pump</b> Yield: <b>18 GPM with 20 ft drawdown after 72 hours</b>

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Water Quality:	Type of Water: <b>No Data</b> Depth of Strata: <b>No Data</b> Chemical Analysis Made: <b>No</b> Did the driller knowingly penetrate any strata which contained undesirable constituents: <b>No</b>
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Certification Data:	The driller certified that the driller drilled this well (or the well was drilled
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3/9/2011

Well Report: Tracking #:165321  
under the driller's direct supervision) and that each and all of the  
statements herein are true and correct. The driller understood that failure  
to complete the required items will result in the log(s) being returned for  
completion and resubmittal.

Company Information: **BARCO WELL SERVICE**  
**P O BOX 1047**  
**KELLER , TX 76244**

Driller License Number: **54174**

Licensed Well Driller Signature: **MICHAEL L. YOUNG**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #165321) on your written request.

**Texas Department of Licensing & Regulation**  
**P.O. Box 12157**  
**Austin, TX 78711**  
**(512) 463-7880**

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description	Dia.	New/Used	Type	Setting From/To
00-09 SANDY TOPSOIL	4 N		PVC BLANK	00-27 220 PSI
09-13 SANDY SHALE WHITE	4 N		PVC SCREEN	27-47 .020"
13-38 WATER SANDS/IRON ROCK LYRS	4 N		PVC BLANK	47-56 220 PSI
38-42 RED SANDSTONE-POROUS	4 N		PVC SCREEN	56-66 .020"
42-48 WATER SANDS				
48-67 GRAY/BLUE SHALE LYRS				

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**STATE OF TEXAS WELL REPORT for Tracking #163356**


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Owner:	<b>TRINITY BROADCASTING NETWORK</b>	Owner Well #:	<b>2</b>
Address:	<b>7409 PLEASANT RUN ROAD COLLEYVILLE, TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>7409 PLEASANT RUN ROAD COLLEYVILLE, TX 76034</b>	Latitude:	<b>32° 54' 52" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 20" W</b>
Elevation:	<b>No Data</b>	GPS Brand Used:	<b>GARMIN NUVI</b>

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Type of Work:	<b>New Well</b>	Proposed Use:	<b>Test Well</b>
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Drilling Date:	Started: <b>10/31/2008</b> Completed: <b>11/3/2008</b>
Diameter of Hole:	Diameter: <b>8.00 in From Surface To 87 ft</b>
Drilling Method:	<b>Mud Rotary</b>
Borehole Completion:	Gravel Packed From: <b>12 ft to 87 ft</b> Gravel Pack Size: <b>1/8"</b>
Annular Seal Data:	1st Interval: <b>From 00 ft to 12 ft with 10 CEMENT (#sacks and material)</b> 2nd Interval: <b>No Data</b> 3rd Interval: <b>No Data</b> Method Used: <b>POSITIVE DISPLACEMENT</b> Cemented By: <b>BARCO WELL SERVICE</b> Distance to Septic Field or other Concentrated Contamination: <b>NONE IN AREA ft</b> Distance to Property Line: <b>57 ft</b> Method of Verification: <b>TAPE</b> Approved by Variance: <b>No Data</b>
Surface Completion:	<b>Alternative Procedure Used</b>

---

Water Level:	Static level: <b>19 ft. below land surface on 11/3/2008</b> Artesian flow: <b>No Data</b>
Packers:	<b>NONE</b>
Plugging Info:	The well <b>was</b> plugged within 48 hours. Casing left in well: Cement/Bentonite left in well: From (ft) To (ft)      From (ft) To (ft)      Cem/Bent      Sacks Used <b>01-12 10 CEMENT PLUGGED TEST HOLE</b> <b>12-82 DRILL CUTTINGS " " "</b>
Type Of Pump:	<b>Submersible</b> Depth to pump bowl: <b>78 ft</b>
Well Tests:	<b>Pump</b> Yield: <b>2.0 GPM with 55 ft drawdown after 72 hours</b>

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Water Quality:	Type of Water: <b>No Data</b> Depth of Strata: <b>No Data</b> Chemical Analysis Made: <b>No</b>
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3/9/2011

Well Report: Tracking #:163356

Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information:

**BARCO WELL SERVICE  
P O BOX 1047  
KELLER, TX 76244**

Driller License Number:

**54174**

Licensed Well Driller Signature:

**MICHAEL L. YOUNG**

Registered Driller Apprentice Signature:

**No Data**

Apprentice Registration Number:

**No Data**

Comments:

**No Data**

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

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Please include the report's Tracking number (Tracking #163356) on your written request.

**Texas Department of Licensing & Regulation**

**P.O. Box 12157  
Austin, TX 78711  
(512) 463-7880**

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description

**00-15 SANDY RED CLAY**

**15-26 SANDS**

**26-30 WATER SANDS/IRON ROCK LYRS**

**30-49 IRON ROCK/SANDSTONE LYRS**

**49-87 BLUE SHALE**

Dia. New/Used Type Setting From/To

**4 N PVC BLANK 00-20 220 PSI**

**4 N PVC SCREEN 20-60 .020"**

**4 N PVC BLANK 60-70 220 PSI**

**4 N PVC SCREEN 70-82 .020"**

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**STATE OF TEXAS WELL REPORT for Tracking #108393**


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Owner:	<b>BRYANT THOMASON</b>	Owner Well #:	<b>1</b>
Address:	<b>7208 PLEASANT RUN RD. COLLEYVILLE, TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>7208 PLEASANT RUN RD. COLLEYVILLE, TX 76034</b>	Latitude:	<b>32° 54' 52" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 41" W</b>
Elevation:	<b>No Data</b>	GPS Brand Used:	<b>GARMIN GPS 5</b>
<hr/>			
Type of Work:	<b>New Well</b>	Proposed Use:	<b>Irrigation</b>

Drilling Date: Started: **2/6/2007**  
Completed: **2/8/2007**

Diameter of Hole: Diameter: **8.00 in From Surface To 120 ft**

Drilling Method: **Mud Rotary**

Borehole Completion: Gravel Packed From: **18 ft to 120 ft**  
Gravel Pack Size: **1/8**

Annular Seal Data: 1st Interval: **From 00 ft to 18 ft with 15 CEMENT (#sacks and material)**  
2nd Interval: **No Data**  
3rd Interval: **No Data**  
Method Used: **POSITIVE DISPLACEMENT**  
Cemented By: **BARCO WELL SERVICE**  
Distance to Septic Field or other Concentrated Contamination: **N/A ft**  
Distance to Property Line: **20 ft**  
Method of Verification: **TAPE**  
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

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Water Level: Static level: **42 ft. below land surface on 2/8/2007**  
Artesian flow: **No Data**

Packers: **NONE**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **Submersible**  
Depth to pump bowl: **80 ft**

Well Tests: **Pump**  
Yield: **20 GPM with 20 ft drawdown after 24 hours**

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Water Quality: Type of Water: **No Data**  
Depth of Strata: **No Data**  
Chemical Analysis Made: **No**  
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the

3/9/2011

Well Report: Tracking #:108393

statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **BARCO WELL SERVICE**  
**PO BOX 1047**  
**KELLER , TX 76244**

Driller License Number: **54174**

Licensed Well Driller Signature: **MICHAEL L. YOUNG**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

---

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

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Please include the report's Tracking number (Tracking #108393) on your written request.

**Texas Department of Licensing & Regulation**  
**P.O. Box 12157**  
**Austin, TX 78711**  
**(512) 463-7880**

**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft) To (ft) Description	Dia.	New/Used	Type	Setting From/To
<b>00-05 TOPSOIL</b>	<b>4 N</b>		<b>PVC BLANK</b>	<b>00-45 220 PSI</b>
<b>05-15 SANDY SHALE</b>	<b>4 N</b>		<b>PVC SCREEN</b>	<b>45-65 .020"</b>
<b>15-39 GRAY SHALE</b>	<b>4 N</b>		<b>PVC BLANK</b>	<b>65-85 220 PSI</b>
<b>39-50 WATER SANDS</b>	<b>4 N</b>		<b>PVC SCREEN</b>	<b>85-105 .020"</b>
<b>50-62 RED SANDSTONE/VOIDS LYRS</b>				
<b>62-74 WATER SANDS</b>				
<b>74-90 SANDY SHALE</b>				
<b>90-120 BLUE SHALE/LIME LYRS</b>				

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**STATE OF TEXAS WELL REPORT for Tracking #79044**


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Owner:	<b>JIM LAFFERTY</b>	Owner Well #:	<b>3</b>
Address:	<b>406 JOHN McCAIN RD. COLLEYVILLE, TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>406 JOHN McCAIN RD. COLLEYVILLE, TX 76034</b>	Latitude:	<b>32° 54' 46" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 47" W</b>
Elevation:	<b>No Data</b>	GPS Brand Used:	<b>GARMIN GPS 5</b>

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Type of Work:	<b>New Well</b>	Proposed Use:	<b>Irrigation</b>
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Drilling Date:	Started: <b>1/25/2006</b> Completed: <b>1/26/2006</b>
Diameter of Hole:	Diameter: <b>8.00 in From Surface To 70 ft</b>
Drilling Method:	<b>Mud Rotary</b>
Borehole Completion:	Gravel Packed From: <b>10 ft to 70 ft</b> Gravel Pack Size: <b>1/8"</b>
Annular Seal Data:	1st Interval: <b>From 00 ft to 10 ft with 8 CEMENT (#sacks and material)</b> 2nd Interval: <b>No Data</b> 3rd Interval: <b>No Data</b> Method Used: <b>POSITIVE DISPLACEMENT</b> Cemented By: <b>BARCO WELL SERVICE</b> Distance to Septic Field or other Concentrated Contamination: <b>N/A ft</b> Distance to Property Line: <b>102 ft</b> Method of Verification: <b>TAPE</b> Approved by Variance: <b>No Data</b>
Surface Completion:	<b>Surface Sleeve Installed</b>

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Water Level:	Static level: <b>28 ft. below land surface on 1/26/2006</b> Artesian flow: <b>No Data</b>
Packers:	<b>NONE</b>
Plugging Info:	Casing or Cement/Bentonite left in well: <b>No Data</b>
Type Of Pump:	<b>Submersible</b> Depth to pump bowl: <b>60 ft</b>
Well Tests:	<b>Pump</b> Yield: <b>12 GPM with 25 ft drawdown after 24 hours</b>

---

Water Quality:	Type of Water: <b>No Data</b> Depth of Strata: <b>No Data</b> Chemical Analysis Made: <b>No</b> Did the driller knowingly penetrate any strata which contained undesirable constituents: <b>No</b>
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Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the
---------------------	--

3/9/2011

Well Report: Tracking #:79044  
statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **BARCO WELL SERVICE**  
**PO BOX 1047**  
**KELLER , TX 76244**

Driller License Number: **54174**

Licensed Well Driller Signature: **MICHAEL L. YOUNG**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

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Please include the report's Tracking number (Tracking #79044) on your written request.

**Texas Department of Licensing & Regulation**  
**P.O. Box 12157**  
**Austin, TX 78711**  
**(512) 463-7880**

**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft) To (ft) Description

**00-10 BROWN CLAY**

**10-21 SANDY CLAYS**

**21-25 WATER SANDS**

**25-46 GRAY SHALE**

**46-55 WATER SANDS**

**55-60 GRAY SHALE**

**60-70 BLUE SHALE**

Dia. New/Used Type Setting From/To

**4 N PVC BLANK 00-28 220 PSI**

**4 N PVC SCREEN 28-68 .020"**

---

**STATE OF TEXAS WELL REPORT for Tracking #79042**


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Owner:	<b>JIM LAFFERTY</b>	Owner Well #:	<b>2</b>
Address:	<b>406 JOHN McCAIN RD. COLLEYVILLE, TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>406 JOHN McCAIN RD. COLLEYVILLE, TX 76034</b>	Latitude:	<b>32° 54' 46" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 46" W</b>
Elevation:	<b>No Data</b>	GPS Brand Used:	<b>GARMIN GPS 5</b>
<hr/>			
Type of Work:	<b>New Well</b>	Proposed Use:	<b>Irrigation</b>

Drilling Date:	Started: <b>1/21/2006</b> Completed: <b>1/23/2006</b>
Diameter of Hole:	Diameter: <b>8.00 in From Surface To 66 ft</b>
Drilling Method:	<b>Mud Rotary</b>
Borehole Completion:	Gravel Packed From: <b>11 ft to 66 ft</b> Gravel Pack Size: <b>1/8"</b>
Annular Seal Data:	1st Interval: <b>From 00 ft to 11 ft with 9 CEMENT (#sacks and material)</b> 2nd Interval: <b>No Data</b> 3rd Interval: <b>No Data</b> Method Used: <b>POSITIVE DISPLACEMENT</b> Cemented By: <b>BARCO WELL SERVICE</b> Distance to Septic Field or other Concentrated Contamination: <b>N/A ft</b> Distance to Property Line: <b>120 ft</b> Method of Verification: <b>TAPE</b> Approved by Variance: <b>No Data</b>
Surface Completion:	<b>Surface Sleeve Installed</b>

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Water Level:	Static level: <b>31 ft. below land surface on 1/23/2006</b> Artesian flow: <b>No Data</b>
Packers:	<b>NONE</b>
Plugging Info:	Casing or Cement/Bentonite left in well: <b>No Data</b>
Type Of Pump:	<b>Submersible</b> Depth to pump bowl: <b>56 ft</b>
Well Tests:	<b>Pump</b> Yield: <b>10 GPM with 20 ft drawdown after 24 hours</b>

---

Water Quality:	Type of Water: <b>No Data</b> Depth of Strata: <b>No Data</b> Chemical Analysis Made: <b>No</b> Did the driller knowingly penetrate any strata which contained undesirable constituents: <b>No</b>
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Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the
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3/9/2011

Well Report: Tracking #:79042

statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **BARCO WELL SERVICE**  
**PO BOX 1047**  
**KELLER , TX 76244**

Driller License Number: **54174**

Licensed Well Driller Signature: **MICHAEL L. YOUNG**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

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Please include the report's Tracking number (Tracking #79042) on your written request.

**Texas Department of Licensing & Regulation**  
**P.O. Box 12157**  
**Austin, TX 78711**  
**(512) 463-7880**

**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft) To (ft) Description

**00-08 BROWN CLAY**  
**08-20 YELLOW AND WHITE CLAY LYRS**  
**20-22 WATER SANDS**  
**22-40 SOFT GRAY SHALE**  
**40-57 WATER SANDS**  
**57-66 BLUE SHALE**

Dia. New/Used Type Setting From/To

**4 N PVC BLANK 00-30 220 PSI**  
**4 N PVC SCREEN 30-60 .020"**

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**STATE OF TEXAS WELL REPORT for Tracking #74417**


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Owner:	<b>DOUG MILLER</b>	Owner Well #:	<b>1</b>
Address:	<b>7112 PLEASANT RUN RD. COLLEYVILLE, TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>7112 PLEASANT RUN RD. COLLEYVILLE, TX 76034</b>	Latitude:	<b>32° 54' 45" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 32" W</b>
Elevation:	<b>No Data</b>	GPS Brand Used:	<b>GARMIN GPS 5</b>
<hr/>			
Type of Work:	<b>New Well</b>	Proposed Use:	<b>Irrigation</b>

Drilling Date: Started: **11/21/2005**  
Completed: **11/24/2005**

Diameter of Hole: Diameter: **8.25 in From Surface To 130 ft**

Drilling Method: **Mud Rotary**

Borehole Completion: Gravel Packed From: **12 ft to 130 ft**  
Gravel Pack Size: **1/8"**

Annular Seal Data: 1st Interval: **From 00 ft to 12 ft with 12 CEMENT (#sacks and material)**  
2nd Interval: **No Data**  
3rd Interval: **No Data**  
Method Used: **POSITIVE DISPLACEMENT**  
Cemented By: **BARCO WELL SERVICE**  
Distance to Septic Field or other Concentrated Contamination: **N/A ft**  
Distance to Property Line: **35 ft**  
Method of Verification: **TAPE**  
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

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Water Level: Static level: **36 ft. below land surface on 11/23/2005**  
Artesian flow: **No Data**

Packers: **NONE**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **Submersible**  
Depth to pump bowl: **92 ft**

Well Tests: **Pump**  
Yield: **18 GPM with 40 ft drawdown after 72 hours**

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Water Quality: Type of Water: **No Data**  
Depth of Strata: **No Data**  
Chemical Analysis Made: **No**  
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the

3/9/2011

Well Report: Tracking #:74417

statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **BARCO WELL SERVICE**  
**PO BOX 1047**  
**KELLER , TX 76244**

Driller License Number: **54174**

Licensed Well Driller Signature: **MICHAEL L. YOUNG**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

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**(512) 463-7880**

**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft) To (ft)	Description	Dia.	New/Used	Type	Setting From/To
00-03	CLAY BACKFILL	4 N		PVC BLANK	00-30 220 PSI
03-12	SANDY CLAY	4 N		PVC SCREEN	30-60 .020"
12-15	WHITE SANDY SHALE	4 N		PVC BLANK	60-80 220 PSI
15-28	WATER SANDS	4 N		PVC SCREEN	80-100 .020"
28-32	SOFT GRAY SHALE				
32-48	WATER SANDS				
48-70	GRAY SHALE				
70-95	WATER SANDS/IRON ROCK LYRS				
95-130	BLUE SHALE/LIMESTONE LYRS				

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**STATE OF TEXAS WELL REPORT for Tracking #45479**


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Owner:	<b>HILLS OF MONTICELLO H.O.A.</b>	Owner Well #:	<b>3</b>
Address:	<b>PO BOX 254 COLLEYVILLE, TX 76034</b>	Grid #:	<b>32-07-9</b>
Well Location:	<b>7600 MONTICELLO PKWY. COLLEYVILLE, TX 76034</b>	Latitude:	<b>32° 54' 59" N</b>
Well County:	<b>Tarrant</b>	Longitude:	<b>097° 09' 57" W</b>
Elevation:	<b>No Data</b>	GPS Brand Used:	<b>GARMIN GPS 5</b>

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Type of Work:	<b>New Well</b>	Proposed Use:	<b>Irrigation</b>
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Drilling Date:	Started: <b>7/23/2004</b> Completed: <b>7/26/2004</b>
Diameter of Hole:	Diameter: <b>8.00 in From Surface To 82 ft</b>
Drilling Method:	<b>Mud Rotary</b>
Borehole Completion:	Gravel Packed From: <b>12 ft to 82 ft</b> Gravel Pack Size: <b>1/8"-1/4"</b>
Annular Seal Data:	1st Interval: <b>From 00 ft to 12 ft with 10 CEMENT (#sacks and material)</b> 2nd Interval: <b>No Data</b> 3rd Interval: <b>No Data</b> Method Used: <b>POSITIVE DISPLACEMENT</b> Cemented By: <b>BARCO WELL SERVICE</b> Distance to Septic Field or other Concentrated Contamination: <b>N/A ft</b> Distance to Property Line: <b>52 ft</b> Method of Verification: <b>TAPE</b> Approved by Variance: <b>No Data</b>
Surface Completion:	<b>Surface Sleeve Installed</b>

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Water Level:	Static level: <b>14 ft. below land surface on 7/26/2004</b> Artesian flow: <b>No Data</b>
Packers:	<b>NONE</b>
Plugging Info:	Casing left in well: Cement/Bentonite left in well: From (ft) To (ft)      From (ft) To (ft)      Cem/Bent      Sacks Used <b>N/A</b>
Type Of Pump:	<b>Submersible</b> Depth to pump bowl: <b>60 ft</b>
Well Tests:	<b>Pump</b> Yield: <b>25 GPM with 28 ft drawdown after 72 hours</b>

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Water Quality:	Type of Water: <b>No Data</b> Depth of Strata: <b>No Data</b> Chemical Analysis Made: <b>No</b> Did the driller knowingly penetrate any strata which contained undesirable constituents: <b>No</b>
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3/9/2011

Certification Data:

Well Report: Tracking #:45479

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information:

**BARCO WELL SERVICE  
PO BOX 1047  
KELLER , TX 76244**

Driller License Number:

**54174**

Licensed Well Driller Signature:

**MICHAEL L. YOUNG**

Registered Driller Apprentice Signature:

**No Data**

Apprentice Registration Number:

**No Data**

Comments:

**No Data**

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**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft) To (ft) Description

**00-08 SANDY TOPSOIL  
08-14 RED AND WHITE SANDY CLAY LYRS  
14-18 WATER SANDS  
18-20 RED SANDSTONE  
20-42 WATER SANDS  
42-46 VOID  
46-70 GRAY SHALE  
70-82 BLUE SHALE AND LIMESTONE LYRS**

Dia. New/Used Type Setting From/To

**4 N PVC BLANK 00-20 220 PSI  
4 N PVC SCREEN 20-52 .020"  
4 N PVC BLANK 52-62 220 PSI  
4 N PVC SCREEN 62-80 .020"**



# **APPENDIX B**

Well Documentation