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Key Words:
Fernald Waste Treatment
Silo 3 Waste Characterization
OU-4 Waste Treatment

Retention: Permanent

Characterization of Fernald Silo 3 Waste (U)

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Savannah River Technology Center
Aiken, SC 29801

December 28, 2000

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Aiken, SC 29808

SAVANNAH RIVER SITE

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Date

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LIST OF ACCYNOMS

ASTM	American Society for Testing and Materials
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CETL	Clemson Environmental Technologies Laboratory
DI	deionized water
DOE	U. S. Department of Energy
EDX	energy dispersive x-ray analysis
EPA	U. S. Environmental Protection Agency
EPA/SW	Environmental Protection Agency/Solid Waste
FEMP	Fernald Enviromental Management Project
FF	Fluor Fernald, Inc.
GEL	General Engineering Laboratory, Inc.
IC	ion chromatography
ICP	inductively coupled plasma spectroscopy
NB	Note Book (Laboratory)
NTS	Nevada Test Site
OU-4	Operating Unit 4
RCRA	Resource Conservation and Recovery Act
RMRS	Rocky Mountain Remedial Services
ROD	Record of Decision
SCDHEC	South Carolina Department of Health and Environmental Control
SEM	scanning electron microscope
SRTC	Savannah River Technology Center
TCLP	Toxicity Characteristic Leaching Procedure
UTS	Universal Treatment Standards
WAC	Waste Acceptance Criteria
WGI	Washington Group International
WSRC	Westinghouse Savannah River Company, LLC
XRD	x-ray diffraction

1.0 EXECUTIVE SUMMARY

A characterization study of the Fernald Silo 3 waste was performed at the request of Rocky Mountain Remedial Services, LLC (RMRS) to support treatment of the waste with the Envirobond reagents and Envirobrick process. The Savannah River Technology Center (SRTC) performed the characterization under a Work for Others Agreement WOF-00-007.

Two 30-gallon drums of Silo 3 waste, collected in 1997 from ports 4 to 6, were provided for this study. Approximately five kilograms of material were consumed in the characterization effort. Results are summarized in this report. The remaining Silo 3 material will be returned to Fluor Fernald, Inc (FF) in early 2001. Treatability studies will not be conducted at this time because of changes in the RMRS-FF contract.

Chemical, radiological and physical property results obtained in this study are consistent with those from two earlier characterization studies of the Silo 3 waste[1, 2]. The Silo 3 waste consists of fine particles, the majority of which are in the size range of 5 to 40 µm. The particles are spherical to subspherical and have rough surfaces. The smallest particles, less than one µm, are more irregular in shape. In the as received condition, the Silo 3 waste is a reddish brown, free-flowing powder consisting of particles with an estimated specific gravity of about 2.5. Simple tamping resulted in a bulk density increase of 53 to 54 percent (0.686 ave. to 1.054 ave. g/cm^3).

The particles are made up of nitrate and sulphate salts of sodium, potassium, magnesium and calcium in addition to diatomaceous earth (filter aid used in the initial waste processing). The porous diatoms (amorphous SiO_2) are coated and filled with salts. The most abundant salts are $NaNO_3$, $CaSO_4$, and $Mg_3(SO_4)_2(OH)_2$. All of the particles are coated with a non crystalline iron-containing phase inferred to be amorphous iron hydroxide.

The Silo 3 waste can be classified as a salt waste because 53 and 56 weight percent of each sample tested in this study was soluble in water. All of the sodium nitrate, $NaNO_3$, was leached from the samples. The potassium salts and some of the calcium and magnesium salts (nitrates and/or sulfates) also dissolved in the presence of water. In addition, the magnesium sulfate hydroxide phase, $Mg_3(SO_4)_2(OH)_2$, completely hydrated after contact with water for 24 hours

The Silo 3 waste also absorbs moisture from humid air as indicated by the weight gain of samples exposed to moist air. The amount of absorption or hydration depends on the humidity and the exposure time. Exposure for seven days at 51, 71, and 95 %RH resulted in weight gains of 9, 17, and 33 weight percent, respectively. Longer exposure times resulted in greater weight gains of up to 54% after 21 days at 95 %RH. The appearance and physical properties of the material exposed to moist air were different than the dry waste as evidenced by clumping, resistance to penetration, and color changes.

The Silo 3 waste consistently displayed the hazardous characteristic of metal toxicity for chromium and selenium. It also displayed metal toxicity for arsenic and cadmium in samples collected and tested in previous studies (1989 core samples). Consequently treatment to reduce the leachability of Cr and Se is required. Treatment for As and Cd is recommended given the limited data. However, additional sampling and analyses may indicate that blending can achieve values below the regulatory limits. These conclusions are supported by a statistical analysis of the current (1997 samples) and historical (1989 samples) observations. In this study of the 1997 samples, the highest Cr concentration in the leachate was slightly more than three times the regulatory limit (5.0 mg/L) for land disposal. The highest Se concentration in the leachate was 1.7 times the limit (1.0). The highest As concentration from previous studies[2] was 41.5 mg/L versus the limit (5.0 mg/L). The highest Cd concentration in leachates generated in this study was 0.971 versus the limit (1.0 mg/L). In previous studies the highest concentration was 6.32 mg/L.[2]

2.0 INTRODUCTION

This report summarizes characterization results for uranium residues from the Fernald Environmental Management Project (FEMP) Operable Unit (OU-4). These residues are currently stored in a one-million-gallon concrete silo, Silo 3, at the DOE Fernald Site, Ohio. Characterization of the Silo 3 waste is the first part of a three part study requested by Rocky Mountain Remedial Services (RMRS) through a Work for Others Agreement , WFO-00-007, between the Westinghouse Savannah River Company (WSRC) and RMRS. Parts 2 and 3 of this effort include bench- and pilot-scale testing.

2.1 OBJECTIVE

The objective of this effort was to characterize Fernald Silo 3 waste prior to evaluating/verifying the effectiveness of the RMRS Envirobond reagents and Envirobrick/briquette process for treating this waste for disposal at the Nevada Test Site (NTS). Specific testing included:

1. Bulk chemical and radiological analyses
2. TCLP evaluation for 8 RCRA metals
3. Phase/mineralogy determination
4. Particle size distribution
5. Particle shape
6. Bulk density, loose and packed
7. Specific gravity
8. Engineering properties for bulk solids handling
9. Corrosivity
10. Effects of relative humidity
11. Weight per cent water-soluble material.

Two tasks, explosivity testing of the fine particulate Silo 3 waste and abrasion testing of concrete to simulate abrasive properties of the actual waste, were not undertaken at this time. The effect of water vapor and determination of the amount and chemistry of the water soluble fraction of the waste were added to the scope after weight gains were observed upon exposure to the laboratory atmosphere.

2.2 BACKGROUND

Rocky Mountain Remedial Services LLC, a subsidiary of Washington Group International (WGI), is providing waste processing services to Fluor Fernald, Inc., a subsidiary of the Fluor

Daniel Corporation. This included retrieval and treatment of the waste currently stored in Silo 3 at the Fernald Environmental Management Project, Operating Unit 4 (FEMP OU-4) near Cincinnati, OH. SRTC/WSRC was requested to characterize a sample of the Silo 3 waste to support the RMRS effort. Characterization results are documented in this report.

Two thirty-gallon containers of Silo 3 waste were shipped from Fernald to the Clemson Environmental Technical Center (CETL) where they were received on September 19, 2000. Fluor Fernald personnel collected this material in 1997 by accessing decant nozzles Numbers 4 to 6 on the side of Silo 3 about 6 feet from the bottom. A 2-inch auger was inserted about 5 to 6 feet into the silo. Since the waste did not flow into this void, an expanding bar was used to break the material lose and scrape out a cavity. Once loosened, the waste flowed into the auger and was collected in several 30-gallon containers. Details of the sampling were obtained from Cregg Bossard, WGI.[3]

RMRS personnel performed characterization and a treatability study using the Envirobond reagents and briquetting process on a portion of the 1997 sample. This information is presented elsewhere.[2, 4] Some of the RMRS characterization data are included in this report for comparison with the new data collected in this study.

2.3 REGULATORY CLASSIFICATION FOR WASTE DECLARATION

WSRC/EPD personnel conducted an independent review of the Fernald Silo 3 waste regulatory classification. This was undertaken to verify that:

1) Subsequent bench- and pilot-scale treatability studies do not require notification/tracking by the South Carolina Department of Health and Environmental Control (SCDHEC) as RCRA treatability studies.

2) Characteristically hazardous metals (8) are the only contaminants of concern with respect to the waste treatment/stabilization effort.

This effort was supported by Fluor Fernald personnel who provided information documenting the position that the appropriate classification of the waste in Silo 3 (OU-4) is as 11e.(2) byproduct material, i.e., uranium residues (low-level radioactive waste, excluded from regulation under the Resource Conservation and Recovery Act).[5] In addition, DOE Order 435.1 continues the policy of allowing DOE to manage 11e.(2) byproduct material as low-level waste at DOE LLW disposal facilities. A summary of this information and a position paper on the acceptability of disposal of FEMP OU-4 residues at the Nevada Test Site[6] are provided in Appendix 1.

Currently, the Silo 3 waste is regulated under CERCLA. The FEMP-OU4-ESD-0 Final Fernald Record of Decision (ROD), Revision 0, January 1998, specifies the treatment as either chemical stabilization/solidification or polymer–based encapsulation.[7] It also specifies that the objective of the treatment is to stabilize the characteristic metals to meet the

- RCRA TCLP limits, and
- Disposal facility Waste Acceptance Criteria (WAC) for off site disposal at either the NTS or an appropriately permitted commercial disposal facility.

The eight characteristically hazardous metals and relevant regulatory limits are provided below in Table 1.

Table 1. Maximum TCLP Leachate Concentrations of Characteristic Metals for Land disposal.

RCRA Hazardous Metal	Regulatory Limit Applicable to Silo 3 Waste TCLP leachate[5] (mg/L)
Arsenic	5.0
Barium	100
Cadmium	1.0
Chromium	5.0
Lead	5.0
Mercury	0.2
Selenium	1.0
Silver	5.0

The Universal Treatment Standard (UTS) limits were not applied because they are not applicable to this waste stream based on: the regulatory classification as byproduct waste; the Fernald OU4 Record of Decision (ROD); and the Nevada Test Site Letter of Understanding concerning disposal of the waste form. In this and previous studies, the Fernald OU4 (Silo 3) waste was not evaluated for underlying hazardous constituents for these same reasons.

3.0 EXPERMENTAL PROCEDURES

3.1 CONTAINER SAMPLING

Two 55-gallon drums were received: W173805 and W173822. Each 55-gallon drum contained a 30-gallon drum. The 55-gallon drum numbered W173805 contained a 30-gallon drum number W173689. The 55-gallon drum numbered W173822 contained another 30-gallon drum number W173696. See Table 2.

Two cores were taken from each 30-gallon drum. A 3-inch diameter stainless steel sleeve (casing) was first inserted into the drum. Material inside of the sleeve was collected using a 2-inch ID AMS extendible core sampler with a butterfly valve on the auger tip. Material in the top one-half of the container was sampled first. The top half was estimated relative to the total by correlating the height of the sampler with the height of the 30-gallon container. In each case the sampler was reinserted several times (3 to 6, as needed) until a total of 1000 or more grams of sample was collected. Then the bottom half of the container was sampled in the same manner. See Table 2 for the actual sample weights.

The number of times the sampler was inserted and the cumulative amount of sample collected are recorded in the CETL Laboratory Notebook.[8] The two core samples were about 180 degrees

apart and approximately two inches from the edge of the drum. The two cores (top and bottom) generated a total of 4 samples for each drum.
The cores were labeled as follows: the last three digits of the 30-gallon drum number-core number-T or B for top or bottom, respectively. For example, Sample 689-1-T is the first core sample taken from the top half of drum W173689.

Table 2. Total Weights of Core Samples Collected From Silo 3 Drums.

55 Gallon Overpack Drum Number	30 Gallon Drum Number	Chemical Analyses and Archived Samples	
		Core Samples	Total Collected (grams)
W173805	W173689	689-1-T	1260
		689-1-B	1057
		689-2-T	1285
		689-2-B	1120
W173822	W173696	696-1-T	1231
		696-1-B	654
		696-1a-B	198
		696-2-T	1157
		696-2-B	1137
		696-GRAB	1204

There were three discrepancies of note:

1. The lid on drum W173696 had the identification number W173693 rather than the expected W173696 identification number.
2. Complete penetration to the bottom of the drum was not possible for core sample 696-1-B. Only 654 grams of Silo 3 material were collected from this core. A second core (969-1a-B) was taken immediately next to the stainless steel sleeve and resulted in an additional 198 grams.
3. Subsequent attempts to sample container W173696 revealed that a plastic bag containing Silo 3 material was on the bottom of the drum. The bag prevented the sampler from going to the bottom of the drum. This was described above. A grab sample (696-GRAB) was taken from the material in the plastic bag.

Each core sample was blended and split using a riffle splitter. From one split approximately 50 grams were placed in a 125 mL plastic bottle. The remainder from the split was placed in a 1-liter bottle. Both samples were sent to General Engineering Laboratories (GEL) for analyses on October 18, 2000, as directed by WSRC. The other split was bottled and archived. For 696-1-B, the sample was split but then most of the sample was combined and sent to GEL, giving them a total of around 500 grams. Sample 696-1a-B was not combined with 696-1-B and was not sent to GEL, Inc. One split from the grab sample 696-GRAB was also sent to GEL. Approximately 200 grams of sample were taken from the nine archived samples (all but 696-1a-B) and sent to Cecil May at WSRC on October 24, 2000 for additional testing.

The Silo 3 material that remained in the drums was transferred to 55-gallon drums (one drum for each of the original 30-gallon drums) and then blended by placing them on a drum tumbler for 24 hours. Samples of the blended material were collected for the physical property testing. Two 5-gallon buckets of Silo 3 material were taken from each of the 55-gallon drums. These composite samples were labeled W173689A and B and W173696A and B.

Drum handling and drum sampling activities were recorded on digital video. The tapes were sent to RMRS via Angel Spencer, WGI, as requested.

Table 3. Samples Collected for Engineering Property Testing and Bench-Scale Testing.

30-Gallon Drum Number	5-Gallon Bucket Sample Number
W173689 Blended	W173689A
	W173689B
W173696 Blended	W173696A
	W173696B

3.2 CHEMICAL AND RADIOLOGICAL ANALYTICAL METHODS

The following analytical techniques (EPA/SW[9] and ASTM[10]) were used to characterize the chemistry and radiochemistry of the Silo 3 waste:

- Ion chromatography (IC) was used to determine anion concentrations (oxalate, nitrite, nitrate, phosphate, sulfate, bromide, chloride, fluoride), EPA method 300.0.
- Cold vapor mercury analysis was used to determine the mercury concentration, EPA SW-846 Method 7471. Sample preparation was according to SW846 7471A.
- Inductively coupled plasma spectroscopy (ICP) was used to determine metal concentrations (bulk and minor constituents except silicon), EPA SW-846 Method 6010.
- Chemical analyses of these solid samples required digestion performed according to SW846 3050B.
- Gamma Spectroscopy was used to determine the concentration of gamma emitting radionuclides.
- Percent Evaporable water ($H_2O_{110\,C}$) was determined according to ASTM method D2216-98. Oven drying rather than microwave drying was used.
- pH of the aqueous phase in contact with the Silo 3 waste was determined using EPA Method 9045C. There were no exceptions or changes to the method.
- Weight percent water-soluble material was determined by a method specified by WSRC. This method is described as follows: 50 grams of Silo 3 material was added to 1000 mL of deionized (DI) water. The mixture was stirred for 24 hours at room temperature and then filtered. The solid residue was dried and weighed. The weight loss was reported as a percent of the original sample. The liquids and dry solids were sent to General Engineering Laboratories for anion and metal analyses.

- Corrosivity was determined using EPA Method 1110. One liter of DI water was mixed with 1000 grams of Silo 3 material. The mixture was shaken by hand for 5 minutes, allowed to settle, and then filtered. The filtrate (500 to 650 mL of leachate, depending on the sample) was used for the corrosivity test. The volume of leachate was less than required by the method, i.e., 870 mL. Less leachate was determined not to effect the results. Temperatures ranged from 48 to 62 degrees C. There were no other exceptions or changes to the method.

3.3 MINERALOGY

Powder pattern x-ray diffractometry (XRD) was used to identify the mineralogy of the phases in the Silo 3 waste. X-ray diffraction patterns are unique for the molecular cell structures of the crystalline phases. The presence of non-crystalline phases can also be determined by XRD. However, the chemistry of the amorphous material can not be obtained from this type of data.

The XRD technique can detect phases that make up at least 2 to 5 weight per cent of the total sample. Consequently, small concentrations of crystalline compounds can not be detected with this technique. In addition, quantitative results are not possible unless particle size is controlled and standards are included. This level of detail was not warranted in this study. Also, qualitative results are subject to many factors and require supporting documentation to be useful.

Scanning electron microscopy (SEM) and electron diffraction x-ray analyses (EDX) were used to obtain qualitative chemistry data for the individual particles in the Silo 3 material.

3.4 TCLP LEACHING

The Toxicity Characteristic Leaching Procedure (TCLP) was performed according to EPA procedure SW846 1311 using 50g of sample and one liter of leachate. The leachate was determined by measuring the pH of water in contact with the waste per SW846 1331. All of the samples required the same leachate, Fluid #2. The leaching time was 18 hours during which the samples were agitated/stirred using a container rotator device. Leaching was carried out at ambient temperature. The leachates were filtered, digested and analyzed using approved SW-846 procedures: ICP-TRACE TCLP (SW846-3010A) and EPA Method 7470 for mercury.

3.5 PHYSICAL PROPERTY TESTING

3.5.1 Loose Bulk Density

Loose bulk density was determined using ASTM Method D 6393-99. The test was performed as written, but there were slight differences in the equipment used as described below.

- ASTM specified the vibrating and stationary chute to be a stainless steel conical chute with the dimensions of: 75.0 mm top diameter, 55.0 mm high, and 50.0 mm bottom diameter. The actual chute was: 72.9 mm top diameter, 76.2 mm high, and 53.8 mm bottom diameter.
- ASTM specified the cup material to be a stainless steel cylindrical container with a 50.5 mm inside diameter by 49.9 mm high. The actual plastic cup had a 50.8 mm inside diameter and was 49.3 mm high.

- The volume of the actual cup was very similar to the one specified in the ASTM method: 100 cm^3 compared to the actual volume of 99.9 cm^3.

There were no other exceptions or changes to the method. See Figure 1.

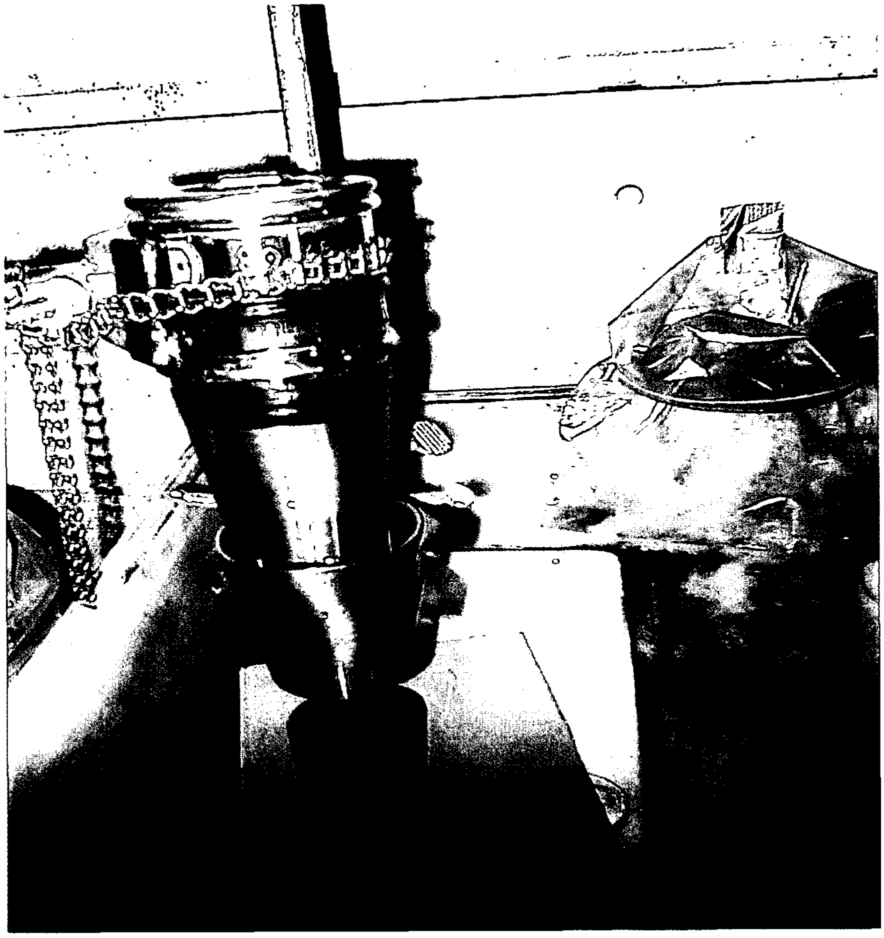


Figure 1. Equipment Used to Measure the Loose Bulk Density.

3.5.2 Compacted Bulk Density

The compacted bulk density was determined using ASTM Method D 6393-99. The test was performed as written with the exception that instead of dropping the cup, it was tapped repeatedly on a ceramic ring stand base until no further decrease in volume was observed. See Figure 2. This test was performed three times on the initial sample to confirm that the approach was reproducible. In addition, the ASTM-specified cup extension was 55.0 mm in diameter by 48.0 mm high. The dimensions of the actual cup extension were 50.8 mm in diameter by 51.6 mm high.

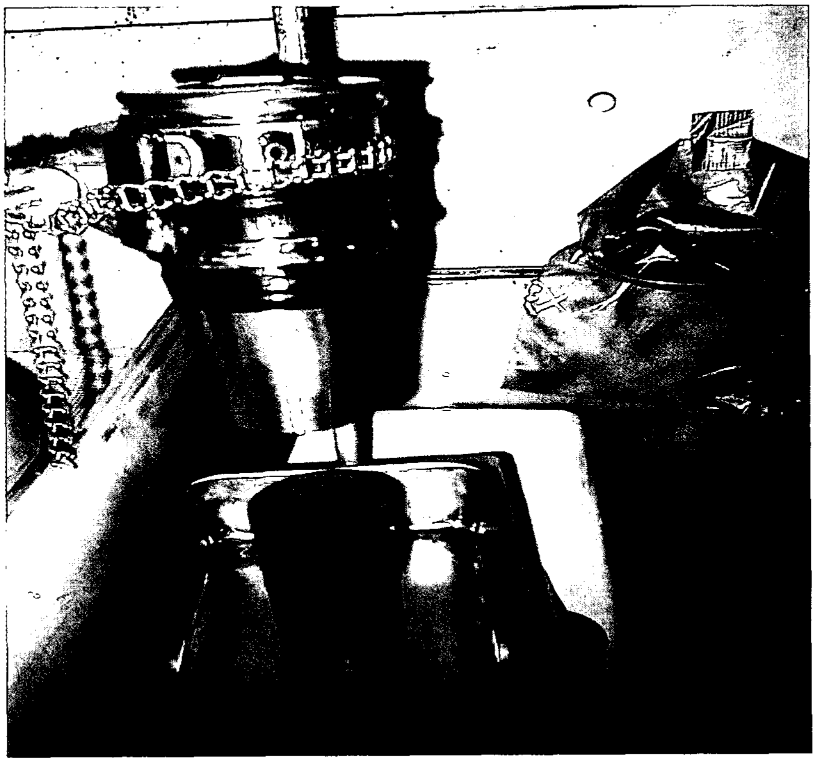


Figure 2. Equipment Used to Measure the Compacted Bulk Density.

3.5.3 Specific Gravity

ASTM method D854-98 was specified for determining the specific gravity of the particles in the Silo 3 waste. However, over 50 weight percent of the material was found to be water-soluble. Consequently a non hazardous fluid was sought as the displacement media in the test. Since a suitable alternative liquid was not identified, this test was not conducted.

3.5.4 Particle size

ASTM method D422-63 (Reapproved 1998) was specified for determining the particle size distribution of the Silo 3 waste. This method involves determining the settling rate of the particles in water. Again, since over 50 weight percent of the material is water-soluble, a non solubilizing liquid was sought. Ethanol was tested but found to dissolve16 weight percent of the waste. Consequently this test was not conducted. As an alternative, particle imaging using a scanning electron microscopy (SEM) was selected to provide a visual estimate the particle size.

3.5.5 Particle Morphology

Scanning electron microscopy was used to characterize the particle morphology. Photographs of the particles provided visual documentation of the material.

3.6 ENGINEERING PROPERTIES

All of the following tests were to be performed according to ASTM Method 6393-99. This method required a Carr Indices tester. This unit is expensive ($25,000), uses fairly simple equipment, and is difficult to decontaminate after use. WSRC requested that CETL follow the spirit of the test as closely as possible using common laboratory equipment and, in some instances, fabricating components for a given test. The differences between the Carr Indices tester and the equipment and approach used are documented below for each test. In addition, photographs of the experimental setups are provided.

3.6.1 Angle of Repose

The angle of repose of the Silo 3 waste was determined using ASTM Method D 6393-99. The test was performed as written. There were slight differences in the equipment as indicated below.

- ASTM specified a glass funnel with a 55 degree angle bowl as measured from the horizontal with a 7.0 mm outlet diameter and a stem length of 33.5 mm. The actual funnel was 58.1 degrees as measured from horizontal with a 14 mm outlet diameter and a stem length of 37 mm.
- ASTM specified the platform as a chrome-plated brass circular platform with a diameter of 80.0 mm and a height of 59.0 mm. The actual platform diameter was 78.2 mm and a height of 41.4 mm.

The height of the cone was measured from the bottom side of the spatula to the top of the cone using a T-square with a level bulb. To confirm that the differences in cup dimensions did not significantly influence the test results, the angle of repose was also determined using a larger aluminum cup with dimensions of 87.9 mm in diameter and a height of 52.6. The results were comparable. See Figure 3.

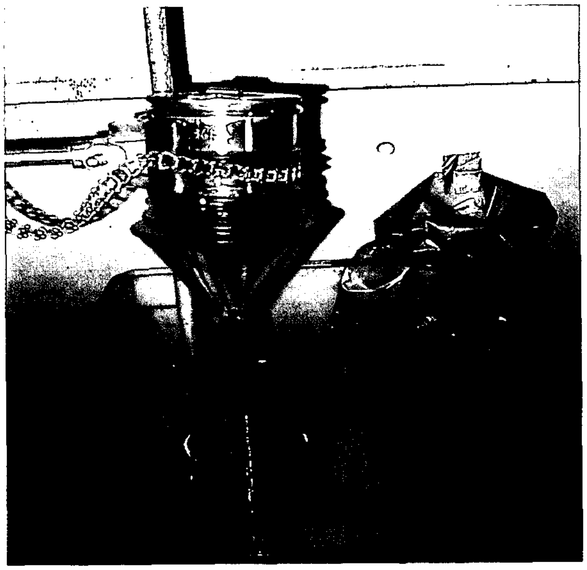


Figure 3. Equipment Used to Measure the Angle of Repose.

3.6.2 Angle of Fall (Angle of Slump)

The angle of fall was determined using ASTM Method D 6393-99. There were slight differences in the equipment as indicated below.

- The T-square with level and the shocker on the ring stand was constructed such that the shocker (weight) was formed from several washers glued together to give a total weight of 109.5 grams. The method specified a weight of 110.0 grams

The height of the cone was measured from the bottom side of the spatula to the top of the cone using a T-square with a level bulb. See Figure 4.

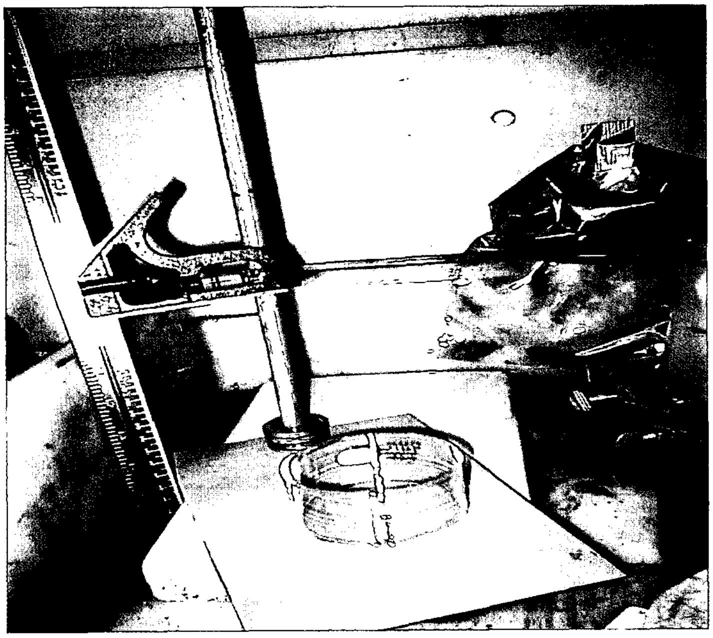


Figure 4. Equipment Used to Measure the Angle of Fall.

3.6.3 Angle of Spatula (Angle of Withdrawal)

The angle of spatula was determined using ASTM Method D 6393-99. There were slight differences in the equipment as described in the Angle of Fall method. In addition, the ASTM specified spatula was 22.0 mm in width by 3.0 mm thick. See Figure 5. (Note the calipers and the shocker on the ring stand). The width of the actual spatula was 19.05 mm; the thickness of the spatula was 0.51 mm. The height of the cone was measured from the bottom side of the spatula to the top of the cone using a caliper. The thickness of the spatula was subtracted from the measurements.

3.6.4 Cohesion

Cohesion was determined using ASTM Method D 6393-99. The test was performed as written. There were slight differences in the actual and the specified equipment. See Figure 6. The spacer and vibrating chute were replaced with a bottom pan.

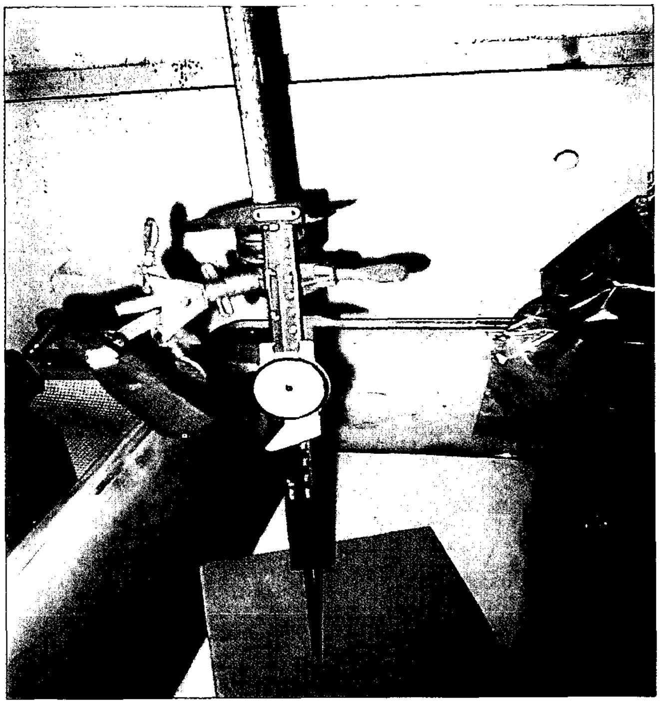


Figure 5. Experimental Setup for the Angle of Spatula Test.

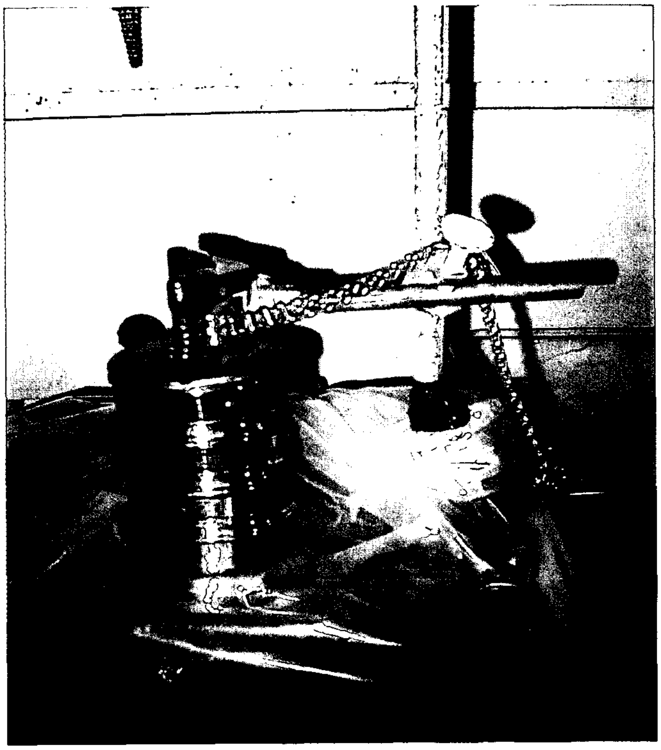


Figure 6. Experimental Setup for the Cohesion Test.

3.7 EFFECT OF RELATIVE HUMIDITY

The Silo 3 material is sensitive to relative humidity and absorbs moisture when exposed to a humid atmosphere. Consequently, a method was developed by SRTC to characterize the effects of humidity on the material. Samples consisting of 40 grams of the Silo 3 waste were placed on a 3-inch sieve that was supported in a closed container at several different relative humidities. Saturated salt solutions in the bottoms of the containers were used to generate unique vapor phase moisture contents. Tests were conducted at 24°C and the humidities were obtained as using the following solutions:

31 %RH over saturated $CaCl_2$ solution,
51 %RH over saturated $Ca(NO_3)_2$ solution,
71%RH over saturated $NH_4Cl+KNO_3$ solution, and
95 %RH over saturated $Na_2SO_3{\bullet}7H_2O$ solution.

Weight gains and the general appearance were recorded after 1, 4, 7, and 21 days.

4.0 RESULTS

4.1 VISUAL DESCRIPTION

Visual description of the material in the as received condition is as follows:
The material is a fine red-brown powder that exhibits some dusting of the finest fraction when disturbed (transferred by pouring or scooping). The particles flow in a cohesive manner when placed on an inclined surface. (The surface can be inclined to about 30 degrees before movement begins.) The material appeared very dry when the drums were opened. The material absorbs moisture from the atmosphere when handled in the work area (radiological hood). This was first noticed by detecting a weight increase after exposure. The amount of moisture absorbed after an hour at laboratory conditions was less than one weight percent. The appearance of the material exposed to ambient laboratory conditions was the same as the as received material (dry). A photograph of the Silo 3 waste is shown in Figure 7.

4.2 CHEMICAL RESULTS

The results of the chemical analyses are summarized in Table 4. The complete set of analytical results from GEL, Inc. is included in Appendix 2.

Results from a previous study of Silo 3 samples collected in 1989[1] are also listed in Table 4. The samples from 1989 contain more calcium and magnesium (low solubility and hygroscopic salts) and less sodium and potassium (soluble salts) than do the 1997 samples analyzed in this study, which were collected from a different location in the silo. X-ray fluorescence, the analytical method used to determine the total concentrations in the 1998 RMRS characterization study, is a semi quantitative method, and the results are not comparable to those generated in the current or 1989 study.

A statistical analysis of the chemical species in the Silo 3 waste was conducted using the observations/data summarized in Table 4. Drum to drum (1997 samples) variation of the chemical species in the Silo 3 waste is statistically significant. This is based on the analyses of 4 samples collected from Drum W173689 and 5 samples collected from Drum W173696. Data from these nine samples plus data from cores collected in 1989 were used to generate upper limits for certain species. These results and a discussion of the statistical methods are presented in Appendix 3.

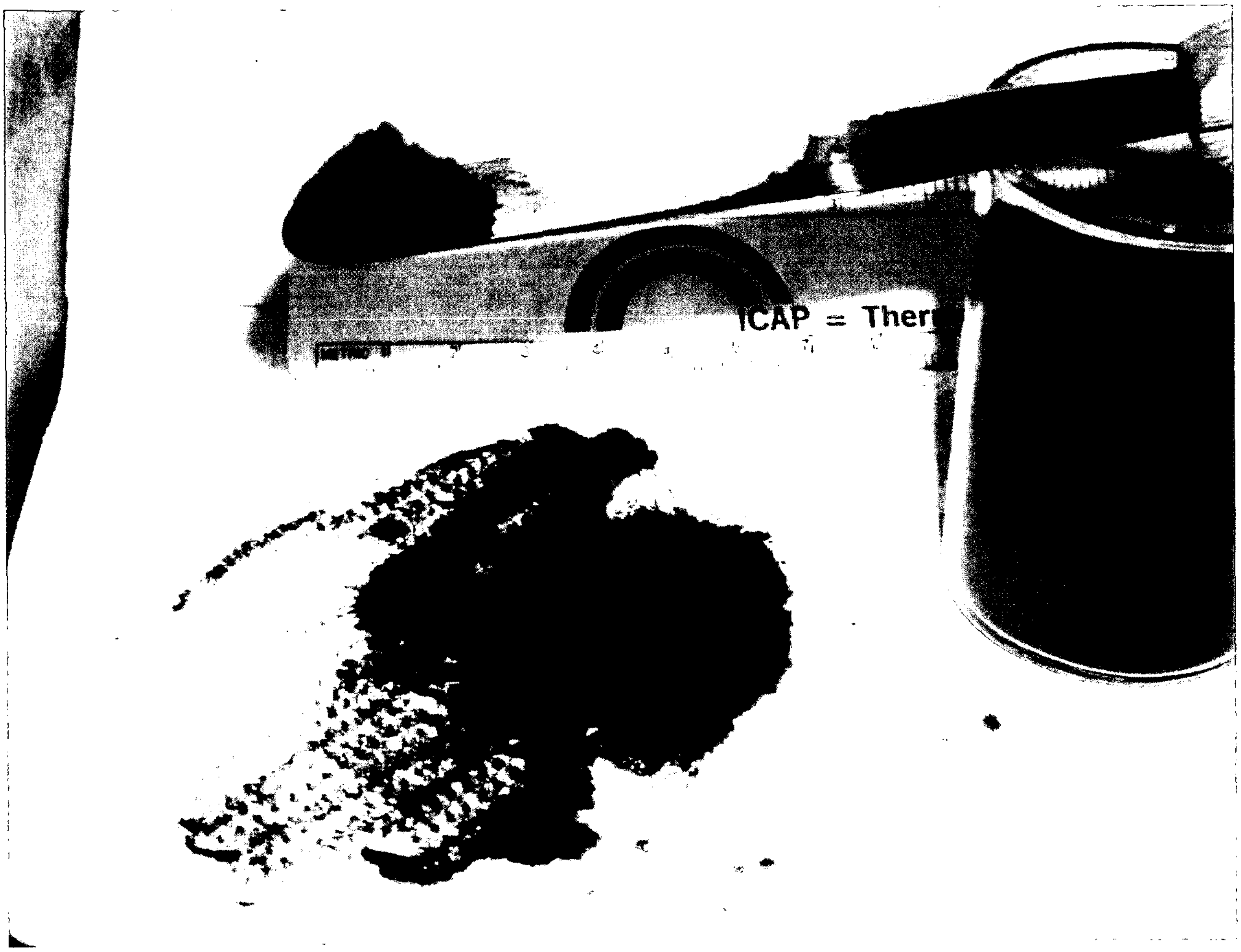


Figure 7. Silo 3 Waste in the as Received Condition.

4.3 Radiological Results

The radionuclide results for samples collected in 1997 and analyzed in this study are summarized in Table 5. The complete set of analytical results from GEL, Inc. is included in Appendix 2. The Silo 3 material contained detectable concentrations of the following gamma emitters, Ac-227 and 228, Pb-212, K-40, Ra-226 and 228. Alpha and beta emitters were not determined.

Table 4. Chemical Analyses of the Silo 3 Waste Obtained from Containers W173689 and W173696 Collected in 1997 and Cores Collected in 1989.[1,2]

		Waste ID	689-1-T	689-1-B	689-2-T	689-2-B	696-1-T	696-1-B	696-2-T	696-2-B	696-GRAB	S3-NEABC	S3-NW-A	S3-NW-B	S3-NW-C	S3-NW-C3	S3-NW-ABC	S3-SE-A	S3-SE-B	S3-SE-B4	S3-SE-C	S3-SEABC
	Method	Lab ID	32957 001	32957 002	32957 003	32957 004	32957 005	32957 006	32957 007	3295 008	32957 009	100098	100103	100104	100105	100106	100107	100097	100099	100101	100100	100102
Parameter	(Det. Limit)	(units)	Sampled in 1989 from lower 1/4 of Silo 3 accessed from the side.									5/25/89										
Oxalate	IC (1.13)	mg/kg	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*
Nitrite	IC (1.97)	mg/kg	11.3	13.07	15.0	10.3	0	0	10.4	10.3	0	*	*	*	*	*	*	*	*	*	*	*
Ortho-phosphate	IC (3.94)	mg/kg	37.1	104	98.1	0	124	117	0	0	137	*	*	*	*	*	*	*	*	*	*	*
Nitrate	IC (197)	mg/kg	38300	38600	40300	38800	37500	37700	37500	36700	38600	*	*	*	*	*	*	*	*	*	*	*
Sulfate	IC (790)	mg/kg	74000	71700	71000	71900	63300	71200	62300	64200	67200	*	*	*	*	*	*	*	*	*	*	*
Bromide	IC (4.00)	mg/kg	0	0	0	0	0	0	0	172	0	*	*	*	*	*	*	*	*	*	*	*
Chloride	IC (6.5)	mg/kg	308	172	304	298	330	332	306	303	283	*	*	*	*	*	*	*	*	*	*	*
Fluoride	IC (4.25)	mg/kg	189	94	161	163	174	196	183	175	179	*	*	*	*	*	*	*	*	*	*	*
Mercury	CVHg (3.98)	ug/kg	58.0	51.8	50.5	46.2	20.7	17.2	18.8	20.6	26.2	80	690	100	80	100	300	100	100	300	300	300
Aluminium	ICP (0.762)	mg/kg	13800	13200	13100	13000	13500	13500	13200	13800	14700	17500	10800	20800	14800	13500	15300	21300	18000	23700	18000	15800
Antimony	ICP (0.161)	mg/kg	1.89	1.57	1.45	1.52	2.16	1.86	2.24	1.89	0.951	4	5.7	5.2	5.5	5.8	5.5	5.2	4.7	5.9	5.7	4.7
Arsenic	ICP (0.258)	mg/kg	1410	1360	1320	1340	1050	990	1020	1040	1030	1980	532	1460	1420	1010	1060	1380	2450	6380	1610	2200
Barium	ICP (0.092)	mg/kg	143	135	135	131	92.2	88.5	88.7	89.3	90.5	185	118	319	142	118	215	297	253	194	332	210
Beryllium	ICP (0.0616)	mg/kg	18.6	17.6	17.6	17.3	70.5	60.0	66.3	61.5	34.6	26.4	10	25.2	31.2	13.9	16.6	20.8	20.6	35.1	39.9	26.5
Boron	ICP (0.812)	mg/kg	277	263	257	262	283	277	279	292	301	*	*	*	*	*	*	*	*	*	*	*
Cadmium	ICP (0.0755)	mg/kg	6.47	6.03	6.12	5.92	33.5	29.1	30.5	27.5	14.9	52.7	21.5	45.5	69.8	24.2	35.1	41.7	60.3	204	40.1	62.4
Calcium	ICP (2.380)	mg/kg	18100	17500	17100	17300	15400	14600	15000	15200	14600	25900	21300	39900	26200	25600	29900	39500	33100	23300	32600	25800
Chromium	ICP (0.128)	mg/kg	340	323	325	317	329	321	316	323	318	221	170	335	560	443	236	260	171	139	421	213
Cobalt	ICP (0.110)	mg/kg	2020	1840	1890	1810	781	762	818	908	1090	1350	*	2190	2800	3520	2950	2580	1100	1870	1340	1340
Copper	ICP (0.198)	mg/kg	1250	1160	1160	1140	1020	1000	951	953	973	2280	1620	2140	2760	1640	2010	2020	2430	7060	1610	2440
Lead	ICP (0.196)	mg/kg	678	647	633	637	381	361	376	386	400	1750	1510	1130	1800	1960	1330	1700	1440	4430	646	1310
Magnesium	ICP (0.364)	mg/kg	34500	32700	32700	32100	34900	33800	34100	35200	34800	52800	44800	72400	71400	80900	58100	74400	62400	38200	44900	44100
Molybdenium	ICP (0.168)	mg/kg	420	388	396	387	816	745	773	732	513	*	*	*	*	*	*	*	*	*	*	*
Nickel	ICP (0.143)	mg/kg	2920	2680	2770	2610	975	951	1030	1160	1450	1970	6170	3150	3040	3830	4230	3280	1200	2280	1810	1760
Selenium	ICP (0.288)	mg/kg	51.4	47.0	47.5	46.0	21.1	20.1	21.0	22.0	24.3	101	349	192	204	186	254	159	108	122	129	105
Silver	ICP (0.199)	mg/kg	1.18	1.13	1.07	1.1	1.43	1.28	1.32	1.16	0.758	16.1	14.9	20.2	13.3	9.5	17.4	23.8	21.5	14.8	9.2	14.3
Strontium	ICP (0.0516)	mg/kg	74.9	70.4	70.3	69.5	85.5	83.6	81.4	83.3	82.1	*	*		*	*	*	*	*	*	*	*
Thallium	ICP (0.396)	mg/kg	2.84	3.10	2.86	2.78	3.48	3.02	2.74	2.31	1.22	3.1	7.2	11.9	5.5	4	13.7	10	37.6	73.9	6.5	35.8
Tin	ICP (0.286)	mg/kg	8.86	8.41	8.65	8.1	8.36	8.21	7.99	8.06	7.16	*	*	*	*	*	*	*	*	*	*	*
Titanium	ICP (0.0665)	mg/kg	141	134	134	133	216	216	196	191	176	*	*	*	*	*	*	*	*	*	*	*
Uranium	ICP (1.740)	mg/kg	599	560	560	542	440	435	419	451	462	*	*	*	*	*	*	*	*	*	*	*
Vanadium	ICP (0.147)	mg/kg	300	288	283	286	917	957	706	635	582	3040	499	1270	2540	418	1040	1180	2030	4550	1420	2030
Zinc	ICP (0.272)	mg/kg	412	393	386	385	454	454	411	431	461	306	301	563	672	449	397	497	361	387	637	380
Potassium	ICP (22.700)	mg/kg	24900	21500	22000	22700	20900	22600	27700	31800	26900	7340	3300	13600	3740	1300	6690	5310	3880	4520	22800	7360
Sodium	ICP (3.020)	mg/kg	66500	53500	57500	55900	52500	59300	70100	77500	59800	39000	22900	39500	51700	27000	30400	30100	43100	38100	44100	31200
Manganese	ICP (1.750)	mg/kg	7920	7510	7710	7490	7820	7870	7860	8070	9090	2780	2700	5790	5940	5290	3970	5200	3610	2420	6500	3980
Silicon	ICP (2.370)	mg/kg	871	903	842	788	937	917	962	887	971	*	*	*	*	*	*	*	*	*	*	*
Iron	ICP (3.960)	mg/kg	77300	48200	48100	68300	43900	43600	42700	45700	90600	23800	28200	67600	45000	40000	37800	41700	26200	13900	60400	31200

* Not analyzed.

Table 5. Isotopic Analyses of the Silo 3 Waste Obtained from Containers W173689 and W173696 Collected in 1997.

	Method	Waste ID									
	(Det. Limit)	Lab ID	689-1-T	689-1-B	689-2-T	689-2-B	696-1-T	696-1-B	696-2-T	696-2-B	696-GRAB
Parameter	γ Spec	(units)	32957001	32957002	32957003	32957004	32957005	32957006	32957007	32957008	32957009
Actinium-227	7.34	pCi/g	435	425	445	427	333	353	350	358	400
Actinium-228	2.55	pCi/g	102	95.3	96.1	96	132	132	126	136	118
Antimony-124	0.837	pCi/g	R4	U	U	U	R4	U	U	U	R4
Antimony-125	2.26	pCi/g	R4	R4	R4	24.5	R4	R4	R4	R4	R4
Barium 133	0.808	pCi/g	R4	R4	R4	R4	U	R4	R4	R4	R4
Californium-249	0.782	pCi/g	R4	R4	R4	R4	R4	R4	R4	R4	R4
Californium-251	2.63	pCi/g	U	U	U	U	U	U	U	U	U
Cerium-141	2.36	pCi/g	U	R4	R4	R4	R4	R4	R4	R4	R4
Cerium-144	4.29	pCi/g	R4	U	U	U	U	U	U	U	U
Cesium-134	0.569	pCi/g	R4	R4	R4	R4	R4	R4	R4	R4	R4
Cesium-135	2.83	pCi/g	R4	R4	R4	R4	R4	R4	R4	R4	R4
Cesium-137	0.658	pCi/g	R4	R4	U	U	U	R4	R4	U	U
Cobalt –57	0.5	pCi/g	R4	R4	R4	R4	R4	R4	R4	R4	R4
Cobalt-58	0.836	pCi/g	U	U	U	U	U	U	U	U	U
Cobalt-60	0.721	pCi/g	U	U	U	U	U	U	U	u	U
Europium-152	1.9	pCi/g	R4	R4	R4	R4	U	U	R4	U	R4
Europium-154	2.1	pCi/g	U	R4	R4	U	R4	U	R4	U	U
Lead-212	1.07	pCi/g	107	104	104	102	136	133	140	143	124
Manganese-54	0.697	pCi/g	R4	R4	R4	R4	R4	R4	U	R4	R4
Neptunium-239	3.54	pCi/g	R4	R4	U	U	R4	U	U	U	R4
Niobium-94	0.713	pCi/g	R4	R4	R4	R4	R4	R4	R4	R4	R4
Potassium-40	7.47	pCi/g	35	35	38.9	38.6	39.5	35.1	40.7	R4	38.8
Promethium-144	0.611	pCi/g	U	R4	R4	U	U	U	U	U	U
Promethium-146	0.885	pCi/g	R4	R4	R4	R4	R4	R4	R4	R4	R4
Radium-226	1.17	pCi/g	995	877	872	929	725	773	789	743	695
Radium-228	2.55	pCi/g	102	95.4	96.1	96.0	132.0	132.0	126.0	136.0	118
Ruthenium-103	0.962	pCi/g	U	U	U	U	U	U	U	U	U
Reuthenium-106	2.67	pCi/g	U	U	U	U	U	U	U	U	U
Sodium-22	0.74	pCi/g	U	J	J	U	J	J	J	U	U
Tin-113	0.976	pCi/g	U	U	U	U	U	U	R4	U	U
Tin-126	1.42	pCi/g	R4	R4	R4	R4	R4	R4	R4	R4	R4
Yttrium-88	0.751	pCi/g	R4	R4	R4	R4	R4	R4	R4	3.54	3.78
Zinc-65	2.08	pCi/g	R4	R4	R4	U	R4	R4	R4	R4	R4
Zirconium-95	1.56	pCi/g	R4	R4	R4	U	U	U	U	U	R4

U Below detection limit.

R4 Below reportable limit.

4.4 MINERALOGY

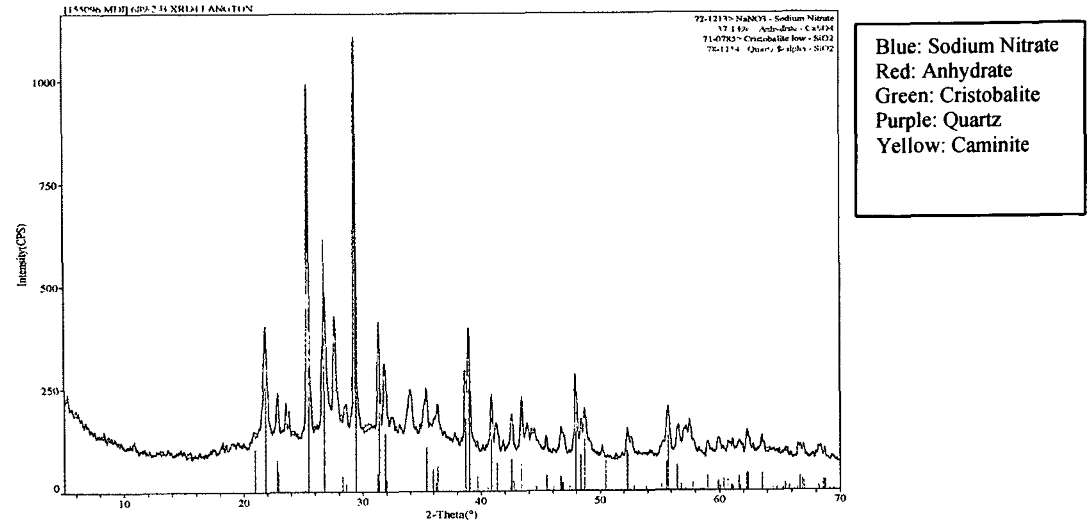
Crystalline phases identified by x-ray diffraction are listed in Table 6. The phases are listed in the order of abundance. (Semi quantitative determinations require standards and special sample preparation that were not performed on these samples.) Amorphous material was also detected by the increase in background in the 20 to 40 degrees 2-theta regions of the patterns. The amorphous material is present as a major component and was subsequently identified in the SEM micrographs as amorphous silica, i.e., diatomaceous earth, which was used as a filter aid at the time the waste was generated, and amorphous iron hydroxide (inferred). The phases identified in this characterization study were compared to those determined in the RMRS characterization of DRUM #2, which was also collected from approximately the same location in Silo 3 in 1997.[2] See Table 6.

In the present study, a composite sample was prepared and washed with deionized water. The soluble constituents, $NaNO_3$, KNO_3, and $Ca(NO_3)_2$ and $(K,Na)_2SO_4$ (inferred), were leached from the sample. The magnesium sulfate phase, caminite, hydrated as the result of the leaching (contact with water). Results are listed in Table 6. Examples of the x-ray patterns used to identify the phases are shown in Figures 8 and 9. Patterns for all of the samples are provided in Appendix 4.

Table 6. Results of the X-ray Diffraction Analyses and Comparison to the RMRS Results.

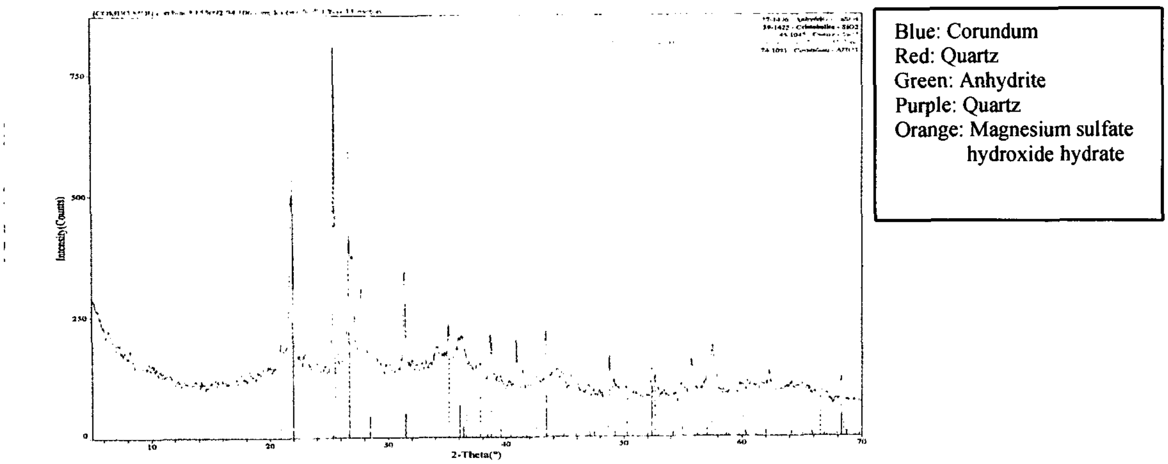
Mineral Name	Chemical compound	SRTC Fresh Sample*	SRTC Washed Sample*	RMRS 1998 Analyses[2]
Nitratine	$NaNO_3$	Major	None	
Anhydrite	$CaSO_4$	Major	Major	~10 wt %
Caminite	$Mg_3(SO_4)_2(OH)_2$	Major	None	~ 12 wt %
Magnesium sulfate hydroxide hydrate	$Mg_{1.33}SO_4(OH)_{0.66}•0.33H_2O$	None	Major	Not Evaluated
Amorphous Phases	Non crystalline Amorphous Fe_2O_3 and Amorphous SiO_2 Diatomaceous Earth	Major/Minor (Inferred) (Inferred)	More than in the unwashed sample	~45-55 wt %
Cristobalite	SiO_2 Diatoms Heated to 500C	Minor	Minor	<5 wt %
Quartz	SiO_2	Minor	Minor	<5 wt %
Plagioclase	$(Na,,Ca)Al(Si, Al)_3O_6$	Minor	Minor	<5 wt %
Corundum	Al_2O_3	Not Apparent	Minor	<3 wt %
Gutsevichite	$(Al,Fe)_3(PO_4)_2(OH)_3•8H_2O$	None	None	<5 wt %
Not a naturally occurring mineral	$K_3Fe(CN)_6$	None	None	<3 wt %
Unidentified		Minor	Minor	<5 wt %

* The amount present is a qualitative estimate and is based on relative diffracted x-ray intensities as indicated by the peak heights and area under the peaks in the x-ray powder patterns. Major and minor components are estimated to be greater than 15 wt. % and 3 to 15 wt. %, respectively.



Savannah River Site

Figure 8. X-ray Diffraction Pattern of a Composite Sample of the Silo 3 Waste. This pattern is representative of those for the other samples.



Analytical Development Section

Figure 9. X-ray Diffraction Pattern of a Leached Composite Sample of the Silo 3 Waste. Sodium nitrate is not present and the magnesium sulfate phase, caminite, $Mg_3(SO_4)_2(OH)_2$, hydrated to $Mg_{1.33}SO_4(OH)_{0.66}•0.33H_2O$ as the result of contact with water.

4.5 TCLP LEACHING

Nine samples, four from container W173689 and five from container W173696, were leached according to the TCLP protocol. The leachates were analyzed for the eight characteristically hazardous metals. Results for each sample are listed in Table 7a. The complete set of analytical data for the TCLP testing is included in Appendix 5. The results for each container were averaged and are summarized in Table 8.

Results from the EP Toxicity testing performed on samples collected in 1989 (cores collected from the top of Silo 3) and from Drum #2 (collected in 1997 from the same location in Silo 3 as the current samples) are also listed in Table 8 for comparison. For the purpose of this discussion, i.e., leaching of fine particulate waste, the EP Toxicity Test and the TCLP Test are considered to give comparable results. Combined results of these three studies indicate that the Silo 3 waste displays the characteristic of metal toxicity for:

- Chromium (Cr) (most samples from each study)
- Selenium (Se) (most samples except those from Container W173696 in the current study)
- Arsenic (As) (1989 samples)
- Cadmium (Cd) (1989 samples).

Statistical analysis of the TCLP leachate results generated in this study (samples from two drums collected in 1997) indicates that the drum to drum variation is significant for Ba, Hg and Se. It is not significant for Ag, As,Cd, Cr, and Pb. In addition, by combining the historical EP Toxicity Leaching data (1989) and the current TCLP data (1997), upper tolerance limits for both a normal and log-normal distribution were calculated. The log-normal distribution gives higher maximum leachate concentrations than does the normal distribution. See Appendix 3 for details.

Based on the maximum TCLP concentrations predicted by the statistical analysis, treatment is required for Cr, Se, As and Cd. Results and discussion of the statistical analysis are presented in Appendix 3. Blending to achieve concentrations of As and Cd below the regulatory limits may be possible but additional sampling and analytical data are required to determine the effectiveness of homogenization. The statistical analysis makes predictions based on the observed variations in leaching results. However, the solubility products for some of the metal containing phases will control/limit the leachate concentrations. This is addressed below.

The percentage of the total of each metal leached was also calculated to evaluate trends and to identify obvious inconsistencies in the analytical results. The total concentrations of each metal in each sample are listed in Table 7b. The percentages of the total concentrations leached for each metal are presented in Table 7c. Outliers are indicated in bold type. The TCLP extraction was repeated for sample 689-1-T because the first set of data contained impossible results. It is not possible to leach 800+ % of the total Ag. Both sets of data are provided in Appendix 5. Only the second set of data, which is consistent with the other results, is shown in Table 7a. The percentage-leached values are specific for each metal and are fairly consistent for among the samples. A summary of the leaching behavior of each of the eight characteristically hazardous metals is presented below:

- Arsenic leachability is most likely controlled by the low solubility of the arsenic-containing phases. Less than 0.1 wt. % of the total arsenic in each sample was leached.

- Barium leachability is controlled by the low solubility of the barium-containing phases. Less than 3.3 wt. % of the total barium was leached from container W173689 and less than 8.0 wt. % from container W173696. The concentrations of barium in the leachates were consistent for the 9 samples tested. The total barium concentrations in samples collected from container W173696 were less than in the other container. Assuming equilibrium between the waste phases and the leachate, the percent leached will be higher for the W173696 samples.
- Cadmium leachability is controlled by the low solubility of the cadmium compounds in the Silo 3 material. The concentrations in the leachates varied less than the total concentrations in the waste. Percentages leached are a function of the total amounts rather than the solubity.
- Chromium containing phases in the Silo 3 waste are relatively soluble in the TCLP leachate solution. The total concentration of chromium in the 9 samples was relatively consistent. Between 50 and 80 % of the total chromium was leached in the testing. The leachate analysis for sample 696-1-T was an outlier (100 to 1000 times lower than in the other leachate). The result is suspect but there was insufficient time for reanalysis.
- Mercury passed the TCLP criteria because the total amount of Hg in the waste is below that required to produce a hazardous leachate. In addition, concentrations of mercury in the leachates were below the detection limit.
- Lead leachability is controlled by the low solubility of one or more lead compound. Less than 0.5 percent of the lead was leached form the 9 samples tested in this study.
- Selenium is relatively leachable with about 60 to 75 percent of the total being leached in the TCLP test. Samples from container W173689 exceeded the hazardous limit; those from container W173696 were less than the limit of 1 mg/L.
- Silver passed the TCLP test because the total amount of Ag present in the waste is below that required to produce a hazardous leachate. In addition, concentrations of silver in the leachates were below the detection limit of Ag given the analytical method used.

Table 8 Averaged TCLP Leaching Data and Comparison to the Regulatory Limits.

Metal	Average for Container W173689 (mg/L)	Average for Container W173696 (mg/L)	Drum #2 shipped to RMRS 8-21-00[2]	EP Toxicity 1989 ave. (mg/L)[4]	RCRA LDR Limit (mg/L)[5]
As	4.38E-02	4.01E-02	ND	9.48E00	5.0
				41.5 max	
Ba	2.26E-01	3.24E-01	ND	8.0E-02	100
Cd	2.85E-02	2.88E-02	7.3E-01	8.47E-01	1.0
				6.32 max	
Cr	8.81E+00	9.16E+00	11.0E00*	5.05E00	5.0
	9.12 max	12.7 max		11.9 max	
Hg	*3.11E-04*	*1.79E-04*	?	*5.0E-04*	0.2
Pb	1.07E-02	3.03E-02	3.6E-01	2.39E-01	5.0
Se	1.72E+00	5.73E-01	1.4E00	2.65E00	1.0
	1.74 max	0.775 max		11.7 max	
Ag	3.37E-03	7.11E-04	?	7.0E-03	5.0

* Cr and Cr+6 reported values are inconsistent.

Italics indicates that values were below the detection limit for the analytical method.

Shaded values indicate that the average value leached in excess of the limit

Table 7a. TCLP Results for Silo 3 Waste Samples.

	Method	Waste ID	689-1-T	689-1-B	689-2-T	689-2-B	696-1-T	696-1-B	696-2-T	696-2-B	696-GRAB
Parameter	(Det. Limit)	Lab ID	33922001	33055002	33055003	33055004	33055005	33055006	33055007	33055008	33055009
Arsenic	ICP (0.257)	mg/L	0.0322	0.0608	0.0417	0.0405	0.027	0.0516	0.0368	0.0495	0.0354
Barium	ICP (0.00748)	mg/L	0.230	0.224	0.223	0.227	0.28	0.336	0.308	0.346	0.351
Cadmium	ICP (0.00631)	mg/L	0.0416	0.0235	0.0256	0.0232	0.0129	0.0318	0.0315	0.0365	0.0315
Chromium	ICP (0.0106)	mg/L	9.12	8.75	8.67	8.7	**0.0162**	12.7	11.9	11.5	9.69
Mercury	CVHg (0.0006)	mg/L	*0.000191*	*0.000428*	*0.000315*	*0.000190*	*0.000061*	*0.000067*	*0.000132*	*0.000111*	***0.000525***
Lead	ICP (0.0183)	mg/L	*0.0010*	0.0249	*0.00366*	*0.0131*	0.0943	0.0179	0.0172	*0.0173*	*0.00479*
Selenium	ICP (0.0236)	mg/L	1.71	1.720	1.740	1.700	***0.002***	0.670	0.704	0.716	0.775
Silver	ICP (0.00529)	mg/L	*0.00995*	*0.00188*	*0.00153*	*0.000137*	*0.000355*	*0.000544*	*0.00129*	*0.000137*	*0.00123*

Table 7b. Total Metal Concentration for Samples Leached in the TCLP test.

Arsenic	ICP (0.257)	mg/kg	1410	1360	1320	1340	1050	990	1020	1040	1030
Barium	ICP (0.00748)	mg/kg	143	135	135	131	92.2	88.5	88.7	89.3	90.5
Cadmium	ICP (0.00631)	mg/kg	6.47	6.03	6.12	5.92	33.5	29.1	30.5	27.5	14.9
Chromium	ICP (0.0106)	mg/kg	340	323	325	317	329	321	316	323	318
Mercury	CVHg (0.0006)	ug/kg	58.0	51.8	50.5	46.2	20.7	17.2	18.8	20.6	26.2
Lead	ICP (0.0183)	mg/kg	678	647	633	637	381	361	376	386	400
Selenium	ICP (0.0236)	mg/kg	51.4	47.0	47.5	46.0	21.1	20.1	21.0	22.0	24.3
Silver	ICP (0.00529)	mg/kg	1.18	1.13	1.07	1.1	1.43	1.28	1.32	1.16	0.758

Table 7c. Weight Percent of the Total Amount of Each Hazardous Metal Leached in the TCLP Test.

As			0.05	0.09	0.06	0.06	0.05	0.10	0.07	0.10	0.07
Ba			3.22	3.32	3.30	3.47	6.07	7.59	6.94	7.75	7.76
Cd			12.86	7.79	8.37	7.84	**0.77**	2.19	2.07	2.65	4.23
Cr			53.65	54.18	53.35	54.89	***0.10***	79.13	75.32	71.21	60.94
Hg			6.59	16.53	12.48	8.23	5.89	7.79	14.04	10.78	***40.08***
Pb			0.00	0.08	0.01	0.04	0.50	0.10	0.09	0.09	0.02
Se			66.54	73.19	73.26	73.91	***0.15***	66.67	67.05	65.09	63.79
Ag			16.86	3.33	2.86	0.25	0.50	0.85	1.95	0.24	3.25

Bold numbers are inconsistent with other results and indicate that there are problems the values obtained.

Italics indicates results are below the detection limits.

4.6 EVAPORABLE WATE R, AMOUNT OF SOLUBLE MATERIAL AND pH

The weight percent evaporable water, the weight percent soluble material, and the pH of water in contact with the Silo 3 waste were also determined. Results are shown in Table 9. Results for the samples characterized in this study and the RMRS study should be consistent since the material analyzed in both efforts came from the same location in the silo. The pH of water in contact with the waste is about 8. The evaporable water ranges from 2.3 to 4.6 wt. %. The most significant difference is the weight percent soluble material. In the samples analyzed in this study, the soluble portion of the sample ranged from 52.6 to 56.1 wt. %. The RMRS results indicated that 34 wt. % of the sample was water-soluble.[2] One explanation is that the leach time was longer (24 hours) in this study compared to the RMRS study.

Table 9. Evaporable Water, Amount of Soluble Material and pH of the Silo 3 Waste.

Sample	W173689 A	W173689 B	W173696 A	W173696 B	RMRS[2] Results	1989[1] Results
Test						
H2O(110 C), %	2.31	2.72	3.15	4.60	NA	NA
Water Leach Wt. % slouble	52.62	53.87	56.12	55.03	34	NA
pH	7.80	7.82	7.95	7.86	8.07 ave.	NA

Chemical analyses of the leachates and of the solid residues from these tests are provided in Appendix 6. The soluble fraction consisted of nitrate and sulfate salts of sodium, potassium, magnesium, and calcium. Identification of the soluble fraction is important to design of the waste form, design of the waste form process, storage of the waste form, and selection of the shipping container.

4.6 PHYSICAL PROPERTY RESULTS

4.6.1 Specific Gravity and Bulk Densities

The loose bulk densities and compacted bulk densities of the Silo 3 samples are shown in Table 10. Light tamping of the Silo 3 waste resulted in a 53 to 54 % increase in the bulk density relative to the loose material as it came out of the drum. The RMRS results for material sampled in 1997 gave an average increase in the compacted relative to the loose bulk density of 42 %.

Bulk densities from the 1989 samples range from 0.465 to 0.929 g/cm^3. Details of the testing were not available at the time of this review to determine whether this range reflects both loose and compacted values. The range suggests that it does.

The specific gravity of the particles was not performed in this study because the specified test method, ASTM D-854, required contact with water. Given the large amount of water-soluble material in the Silo 3 waste, 52 to 56 weight percent, this method was inappropriate. If this information is required in the future, a helium pycnometer (or other dried gas pycnometer) should be used to make the measurements.

Table 10. Bulk Densities and Specific Gravity Measurements of the Silo 3 Waste.

Test	W173689 A	W173689 B	W173696 A	W173696 B	RMRS Results[2]	1989 Results[1]
Specific Gravity	NA	NA	NA	NA	2.70	2.08-2.75
Bulk Density (loose)	0.688 (g/cm^3)	0.697 (g/cm^3)	0.675 (g/cm^3)	0.684 (g/cm^3)	0.679 (g/cm^3)	29-58 (lb/ft^3) 0.465-0.929 (g/cm^3)
Bulk Density (compacted)	1.061 (g/cm^3)	1.064 (g/cm^3)	1.039 (g/cm^3)	1.045 (g/cm^3)	0.967 (g/cm^3)	NA
Increase in Bulk density as the result of tamping	54 %	53 %	54 %	53 %	42 %	

4.6.2 Particle Size

ASTM method D-422 was not appropriate for the Silo 3 waste. This test is based on settling time in water. Since over 50 wt. % of the Silo 3 samples was water-soluble and since the magnesium sulfate phase hydrates in the presence of water, accurate results can not be obtained by this method. In this study, ethanol was tested as a non-hazardous liquid dispersing media in place of water. However, 16.4 wt. % of the Silo 3 sample dissolved in the ethanol after 12 hours. Ethanol was used as the dispersing media in the 1998 RMRS particle size analyses. The results of this study are therefore questionable. The smallest soluble particles were probably not counted. In addition, the density of the liquid increased due to the dissolved salts and thereby biased the settling rate values.

In this study, particle size was estimated qualitatively using SEM micrographs. The small samples examined were obtained from splits of the core samples taken from the two containers. These samples did not undergo harsh mixing or handling. The bulk of the particles were between 5 and 40 μm for all of the 9 samples examined. Examples of the SEM micrograph data are shown in Figures 10 and 11.

It is surprising that the current SEM estimate and the previous settling rate techniques produced results that are in general agreement. One explanation is that the soluble fraction has the same particle size and size distribution as the insoluble particles. Another explanation is that the soluble portion of the sample is a coating on the interior and exterior surfaces of the insoluble particles. Dissolution of a thin layer will be difficult to detect. (Diatomaceous earth (very porous) makes up a large portion of the insoluble particles.) A third explanation is that hydration of the magnesium sulfate hydroxide results in a particle size increase which offsets the loss in size caused by dissolution of a coating.

Although particles size measurements made in this and previous studies resulted in obvious inaccuracies, the results provide useful information for the purpose of equipment specification and process design. If additional characterization is required, sieving out the coarser fraction (No. 10 and 200 mesh sieves) and statistical counting of the finer particles in microscope images (optical or SEM) is recommended for quantifying the particle size and size distribution. Otherwise a liquid that does not react with the Silo 3 waste must be identified as a media for dispersing the particles. Design of the waste retrieval and processing off gas system should benefit from better characterization of the particle size distribution and chemistry (solubility) of the finest fraction.

4.6.3 Particle Morphology

The particles making up the Silo 3 waste are spherical to sub-spherical to irregular in shape as shown in Figures 10 and 11. The majority of the particles appear to be coated with precipitates that do not have discrete crystal faces. The surfaces of the particles are somewhat rough as shown at higher magnifications. Therefore, they will tend to bridge and to be fairly cohesive. Some of the larger particles are cellular/porous. The internal and external surfaces of the porous particles are coated with other solids as shown by the dark spots (holes) on the larger particles in the micrographs. The porous, sponge-like particles are diatoms that made up the diatomaceous earth used as a filter aid in the original processing.

Figure 11 illustrates the particle morphology of washed/leached Silo 3 waste. They are very similar to the unwashed particles in size and shape. Insufficient time was available to make a detailed comparison. However, the soluble fraction probably has a particle morphology as the insoluble fraction.

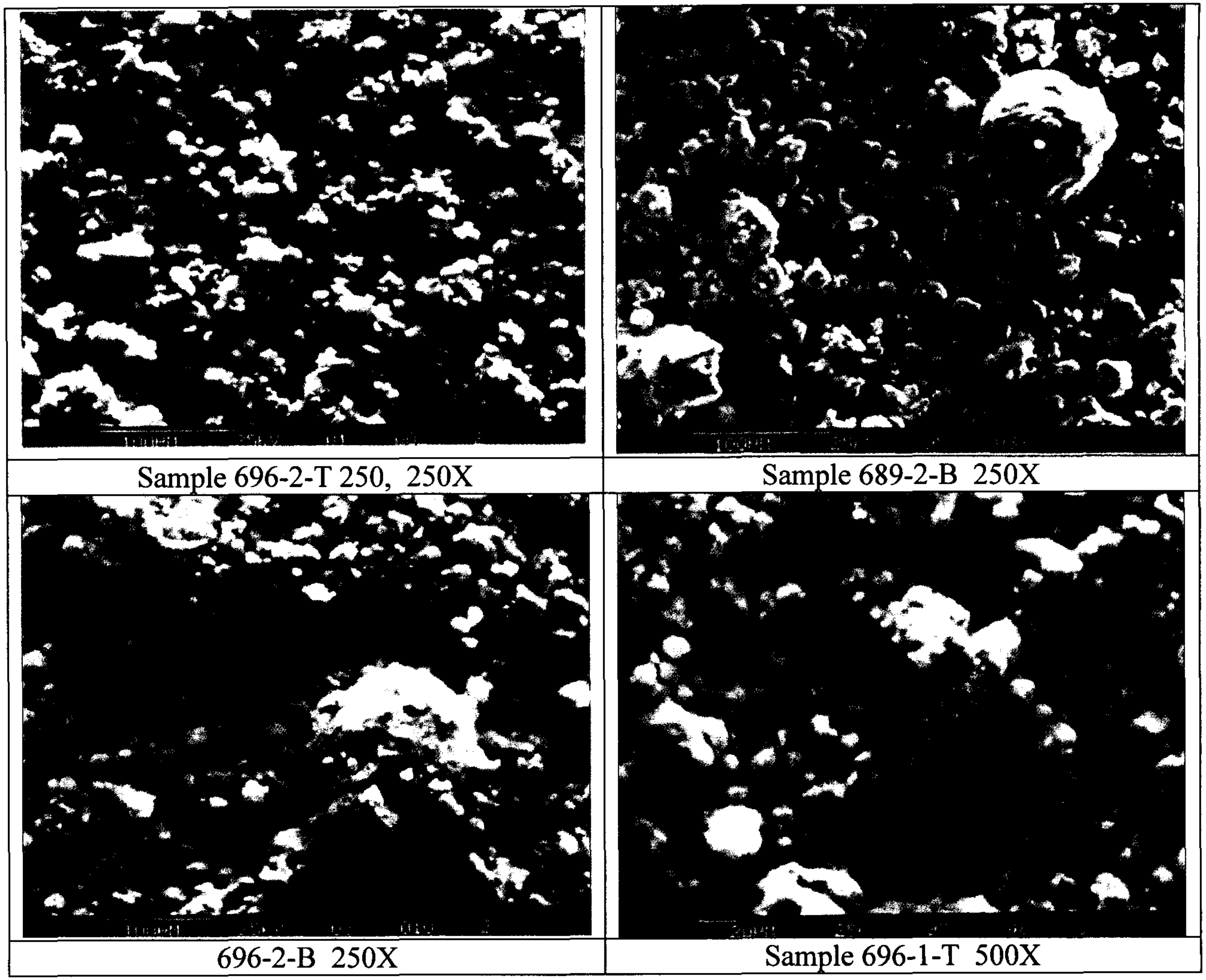
4.7 ENGINEERING PROPERTIES

The engineering/physical properties of the bulk solids are listed in Table11. These results indicate that the Silo 3 waste is a free flowing in the as received condition. Tests were performed at about 50 % relative humidity. Less than one hour was required to conduct each test so short exposure to moist air had minimal effects on the results reported in Table 11.

Table 11. Summary of Engineering/Physical Properties of the Silo 3 Waste.

Test	W173689 A	W173689 B	W173696 A	W173696 B	RMRS Results[2]	1989 Results[1]
Angle of Repose (°)	45.71	47.1	46.07	45.68	36	NA
Angle of Fall (Slump) (°)	25.43	24.22	25.43	26.34	NA	NA
Angle of Spatula/Withdrawal (°)	65.08	65.20	64.61	69.17	NA	NA
Cohesion (%)	74.55	63.65	83.15	66.98	NA	NA
Corrosivity (mm/yr)*	0.14	0.08	0.05	0.05	NA	NA

* A rate of >6.35 mm per year is considered corrosive.



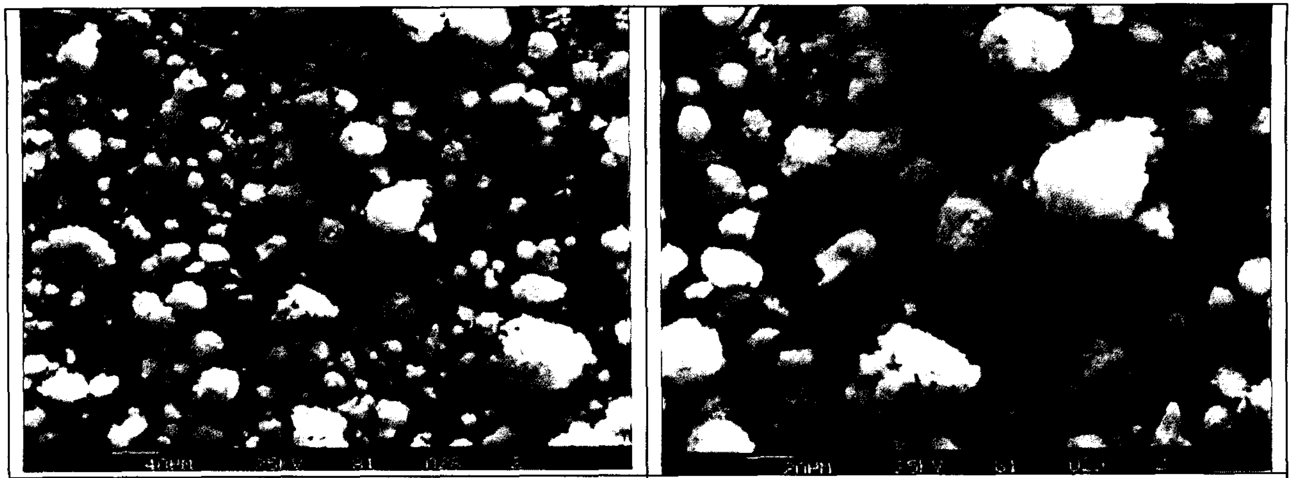
Sample 696-2-T 250, 250X

Sample 689-2-B 250X

696-2-B 250X

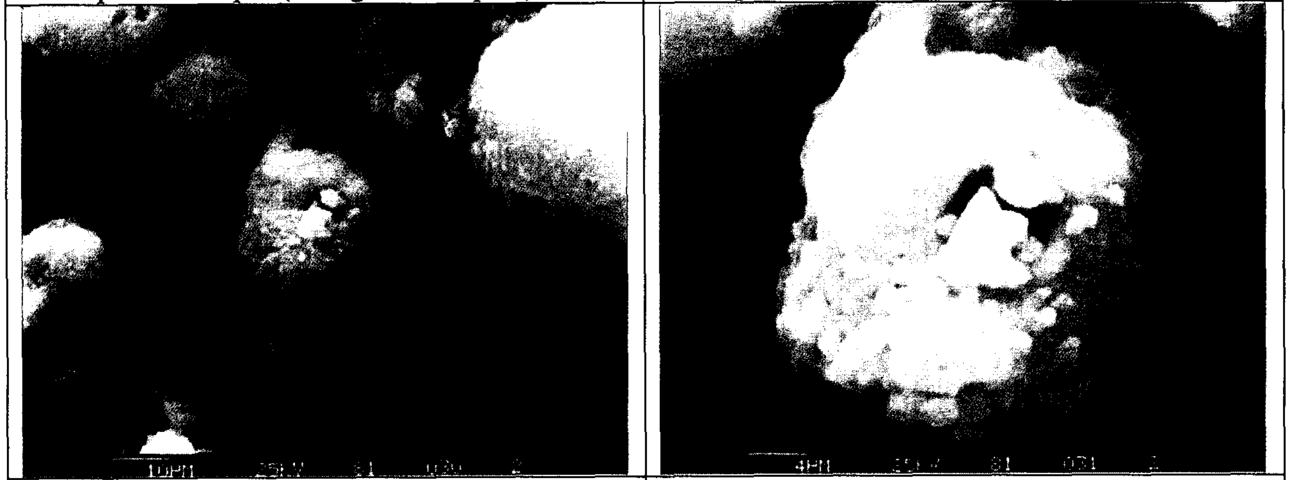
Sample 696-1-T 500X

Figure 10. Particle Morphology and Particle Size of Silo 3 Waste (secondary electron images). An x-ray diffraction pattern representative of this sample is shown in Figure 8. Micrometer scale bars are shown on the bottom left side of each photograph.



Composite sample (8 original samples) 250X

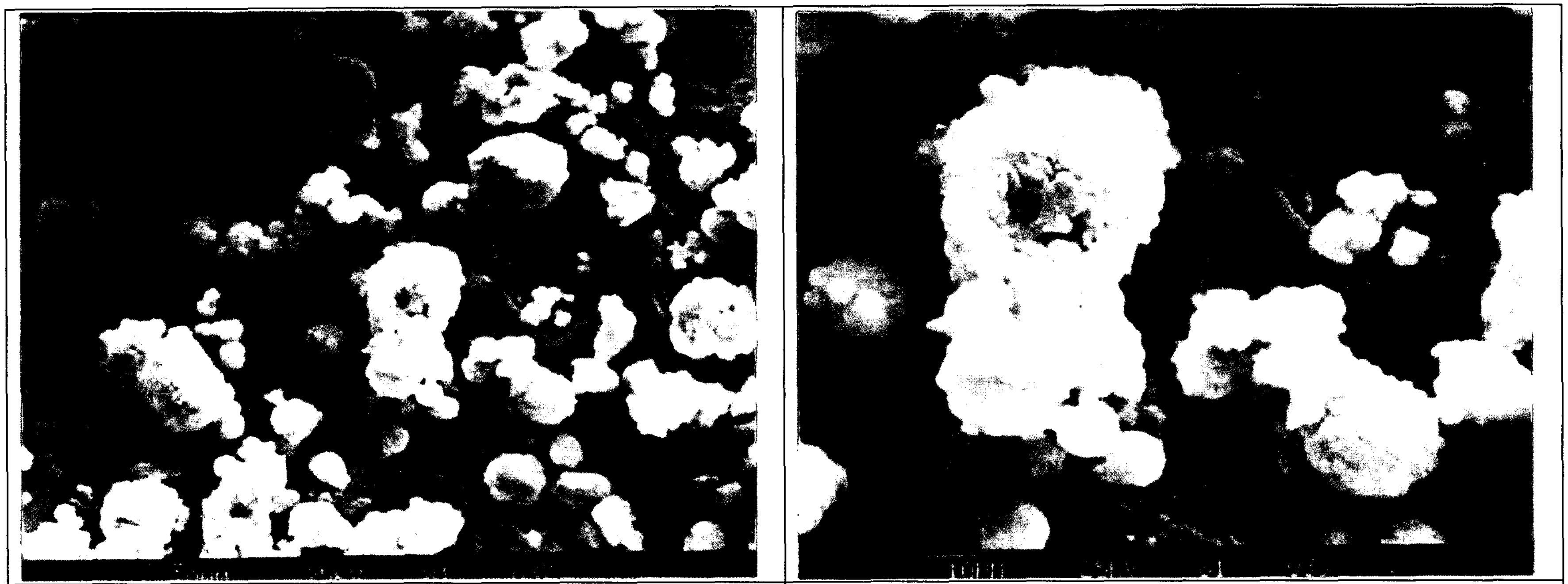
Composite sample (8 original samples) 500X



Composite sample (8 original samples) 1000X

Composite sample (8 original samples) 3000X

Figure 11. Particle Morphology and Particle Size of a Composite Sample (made from the 8 core samples) of Silo 3 Waste (secondary electron images). An x-ray diffraction pattern representative of this sample is shown in Figure 8. Note the rough surfaces that are obvious at the higher magnifications.
Micrometer scale bars are shown on the bottom left of each photograph.



Washed/leached composite sample 500X

Washed/leached composite sample 1000X

Figure 12. Particle Morphology and Particle Size of Washed Silo 3 Waste (secondary electron images). The x-ray diffraction pattern for this sample is given in Figure 9. The sodium nitrate is not present and the magnesium sulfate hydroxide has hydrated. Note the rough surfaces that are obvious at the higher magnifications. Micrometer scale bars are shown on the bottom left of each.

The corrosivity of the Silo 3 material, more specifically, water in contact with this material was also determined. Corrosion rates of <0.2 mm/year were measured for all of the samples. Since a rate of >6.35 mm per year is considered corrosive, the Silo 3 waste is not classified as corrosive per this test.

4.8 EFFECTS OF HUMIDITY

The Silo 3 waste absorbs moisture from humid air as indicated by the weight gain of samples exposed to moist air. The amount of absorption or hydration depends on the humidity and on exposure time. Exposure to air with 31%RH resulted in a slight weight gain (2.3 %) after 21 days. However, exposure for seven days at 51, 71, and 95 %RH resulted in weight gains of 9, 17, and 33 weight percent, respectively. The appearance and physical properties of the exposed material were altered by the exposure to moist air. Clumping, resistance to penetration, and color changes were observed for Silo 3 material exposed to these conditions. Results and observations are summarized in Table 12. Engineering properties angle of repose, angle of slump, angle of withdrawal, and cohesion, were not measured on samples exposed to moist air for extended periods of time. However, these measurements are recommended for future studies.

Table 12. Weight Gain and Appearance as a Function of Exposure to Moist Air.

Relative humidity (%RH)	Exposure time (days)	Weight Gain (%)	Weight Added to simulate weight of overburden in silo or storage vessel	Appearance
31	1	1.1	None	-----
	4	1.6	None	-----
	7	1.8	None	Dry, free flowing
	21	2.3	None	Dry, free flowing
51	1	3.4	None	-----
	4	7.1	None	-----
	7	8.7	1.85 lbs/in^2	Free flowing with some clumping, slightly "set up"
	21	12.5	1.85 lbs/in^2	Clumpy, Dirt clod appearance
71	1	4.9	None	-----
	4	12.9	None	-----
	7	17.0	1.85 lbs/in^2	Some clumping, slight resistance to penetration
	21	24.6	1.85 lbs/in^2	Clumpy, Dirt clod appearance, material stuck to bottom of weight, darker color
95	1	8.3	None	-----
	4	22.7	None	-----
	7	33.2	1.85 lbs/in^2	Clumps readily, some resistance to penetration darker color
	21	53.7	1.85 lbs/in^2	Consistency similar to dry paste, dark brown color

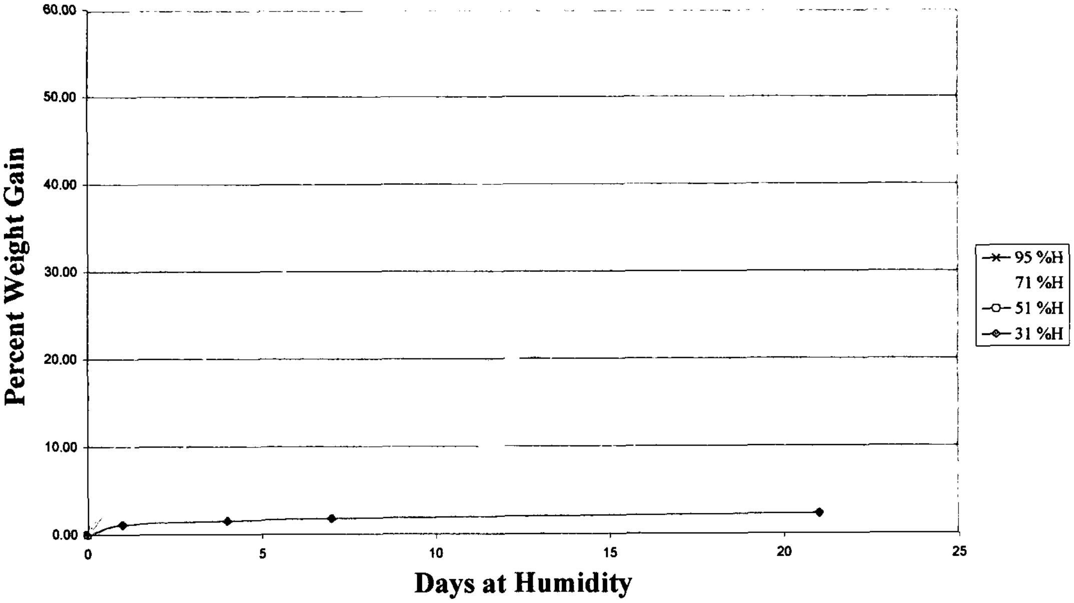


Figure 13. Weight Gain of Silo 3 Waste versus Exposure Time to Moist Air.

7 days exposure at 31, 51, 71, and 95 %RH (left to right)

21 days exposure at 31,51,71, and 95 %RH (left to right)

21 days exposure at 71%RH

21 days exposure at 95 %RH

Figure 14. Appearance of Silo 3 Waste after Exposure to Humid Air for 7 and 21 days. (The brass sieves are three inches in diameter.)

5.0 CONCLUSIONS

Fernald Silo 3 waste is a by-product waste as defined by DOE and EPA and is therefore exempt from RCRA regulation. However, the Record of Decision on treatment and disposal of the Silo 3 waste states that the waste will be treated to meet the disposal requirements of the Nevada Test Site and to pass the leaching requirements for the eight characteristically hazardous metals. Consequently, based on this study and two previous studies, stabilization/treatment is required for Cr and Se. In addition, based on leaching results from cores collected in 1989, treatment is also required for As and Cd. Given the limited sampling and leaching data, blending may be insufficient to meet the requirements for As and Cd.

The bulk of the waste consists of nitrate and sulfate salts of sodium, potassium, calcium, and magnesium. These salts form spherical to sub spherical particles and are coated with amorphous iron hydroxide. Diatoms (porous SiO_2 filter aid) were also detected in micrographs of the waste. These porous particles are impregnated and coated with the salts and the iron-containing phase. Over 50 weight percent of the Silo 3 waste is soluble in water. Sodium nitrate and potassium/calcium nitrate (inferred) are completely soluble. Magnesium salts are somewhat soluble. The magnesium sulfate hydroxide phase recrystallizes to a hydrated phase in the presence of water.

In this study, particle size was determined in a qualitative manner because of difficulties encountered with standard measurement techniques. Previous results may have underestimated the average particle size and the fraction of the finest particles (less than about 1 um). This is because a large portion of the waste is soluble in the dispersing media (water and methanol) used in these studies. Hydration of the magnesium sulfate hydroxide phase in the presence of water, also affects the particle size and size distribution of the waste.

The Silo 3 waste was also found to be hygroscopic in the presence of moist air. Weight gains of 12, 25, and 54 percent were measured for a sample exposed for 21 days to air with 51, 71, and 95% relative humidities, respectively. Clumping, color changes and resistance to penetration increased as a function of exposure to moist air.

New information generated from this study includes documentation of the sensitivity of the Silo 3 waste to water and to moist air. This waste stream can be classified as a DOE salt waste. Results obtained in this study include weight loss upon leaching in water (greater than 50 percent) and weight gain upon exposure to moist air (more than 50 percent in the most severe condition tested). Physical properties of the leached material are similar to those of the material in the as received condition. Physical properties of the material exposed to moist air were different than those of the as received waste in that it was no longer free flowing and showed some resistance to penetration.

This work was intended to support the design of the Silo 3 waste retrieval, interim storage operations, and waste form processing, packaging, storage and shipping operations. The Silo 3 material is similar in some respects to other salt waste streams in the DOE complex that have been treated for disposal. Wastes containing large amounts of soluble salts have been successfully processed in the DOE complex but have also presented problems in treatment, storage and shipment throughout the DOE complex.

6.0 RECOMMENDATIONS

Additional sampling of the Silo 3 waste is recommended to provide more comprehensive data on which to base design of the retrieval and treatment process. If collection and characterization of additional samples are not possible, the design should account for uncertainties. For example, given the limited data, the Silo 3 waste must be treated for chromium, selenium, arsenic and cadmium.

The waste contains a large amount of soluble salt and also absorbs moisture from the atmosphere. The consequences of the sensitivity of the waste to moisture must be considered in future sampling, handling, treatment, storage, and shipment.

7.0 QUALITY ASSURANCE

This effort was carried out as a scoping study. Consequently no special M&TE requirements were formally applied. Analyses conducted at SRTC were in accordance with the SRTC Conduct of Research and Development Manual and results are recorded in SRS Laboratory Notebook, WSRC-NB-93-156. Analyses conducted at the CETL were performed in accordance the CETL Quality Assurance Procedures and are recorded in Laboratory Notebook, DE, Project 226-2002032. Quality assurance documentation for the chemical and radiological analyses conducted by GEL, Inc. is provided in the respective Appendices 2, 5 and 6.

8.0 REFERENCES

1. Remedial Investigation Report for Operable Unit 4, volume 2 of 3, U. S. Department of Energy, Fernald Field Office, November 1993.
2. Ali Sogue, "Fernald Silo 3 Project, Silo 3 Characterization, Treatability, and Compaction Study," Rocky Mountain Remedial Services, LLC, May 15, 2000.
3. Personal communication, Cregg Bossard, September 2000.
4. Memorandum from Angel Spencer to Cregg Bossard, Washington Group, Inc., 9-7-2000.
5. Federal Register Volume 52, No. 84, May 1, 1987.
6. Position Paper on the Acceptability for Disposal of FEMP Operable Unit 4 Residues as Low-Level Radioactive Waste at the Nevada Test Site (NTS), Rev. 1, April 2000.
7. FEMP-OU4-ESD-0 Final Fernald Record of Decision (ROD) Revision 0, January 1998.
8. C. A. Langton, "Silo 3 Waste Treatment Final Report, Phase 1, Physical Testing," WSRC-RP-2001-00167, Westinghouse Savannah River Company, Savannah River Site, SC, January 9, 2001.
9. Environmental Protection Agency Solid Waste Methods, SW-846.
10. American Society for Testing and Materials, Annual Books of Standards, 1998, ASTM, Philadelphia, PA.

APPENDIX 1. Regulatory Classification of the Fernald Silo 3 Waste

Prepared by Lynn Nelson for Christine Langton.

10/11/00

Fernald Silo 3 Evaluation

Regulatory Impacts:

Atomic Energy Act, 1954 – Section 11(e): "Byproduct material" includes (2) "the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content."

Federal Register Vol. 52, No. 84, 5/1/87 –
"The effect of this rule is that all DOE radioactive waste which is hazardous under RCRA will be subject to regulation under both RCRA and the AEA. This rule does not affect materials that are defined as byproduct material under Section 11(e)(2) of the Atomic Energy Act."

Position Paper on the Acceptability for Disposal of FEMP Operable Unit 4 Residues as Low-Level Radioactive Waste at the Nevada Test Site (NTS), Rev.1, April 2000

At the point of origin, the Silo 3 waste is an 11e. (2) by-product material is excluded from compliance with RCRA; This RCRA-exempt waste will be treated pursuant to the CERCLA ROD to stabilize hazardous constituents, and to greatly reduce radon emanations. The treated material will be received as LLW, pursuant to the provisions of DOE Order 435.1. The FEMP Silo 3 waste stream as well as similar OU-4 waste streams, may be considered to be LLW at the point of receipt, and comply with the NTSWAC for the management of LLW.

Because the 11e. (2) by-product material is excluded from regulation under RCRA, listed wastes identified at 40 CFR 261 Subpart D **cannot** be present within the waste stream.

FEMP-OU4-ESD-0 Final Fernald Record of Decision (ROD), Revision 0, January 1998

" Treatment, using either Chemical Stabilization/Solidification or a Polymer-Based Encapsulation process, to stabilize characteristic metals to meet RCRA TCLP limits and attain disposal facility WAC; and Offsite disposal at either the NTS or an appropriately-permitted commercial disposal facility. "

Discussion:
The material in Silo 3 is byproduct material as defined under Section 11(e)(2) of the AEA and as a result it is not subject to the RCRA regulations for hazardous waste. As a result, this material would not be subject to the hazardous waste treatability study exemption identified in 40 CFR 261.4(f). Quantity limits, time limits, etc.... would not be applicable.

The Fernald ROD specifies that this material, even though it is not a RCRA hazardous waste, will require treatment if any constituents are above the RCRA TCLP limits to bring those constituents below TCLP limits. Additionally, since the OU-4 waste has never been regulated as a RCRA mixed waste, the waste would not be required to meet the RCRA LDR UTSs.

To satisfy the ROD requirements for TCLP limits, the material is a nonwastewater per LDR and the analysis obtained on 5/15/2000 and 9/7/2000 for Drum 2 indicates that the only constituents above the regulatory toxicity levels for characteristic hazardous waste are Selenium (Se) and Chromium (Cr). These would have to be treated to below the toxicity levels of 1.0 mg/l TCLP for Se and 5.0 mg/l TCLP for Cr. The waste also contains Cr+6.

Note: RMR-0445-Eng-094-A, Silo 3 Characterization, Treatability, and Compaction Study 8/2/2000 conflicting data --for drum 2, TCLP results indicate that Se does not exceed TCLP limits.

By - Product Rule - AE(

Rules and Regulations

Federal Register
Vol. 52, No. 84
Friday, May 1, 1987

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Part 910

[Lemon Regulation 559]

Lemons Grown in California and Arizona; Limitation of Handling

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Final rule.

SUMMARY: Regulation 559 establishes the quantity of fresh California-Arizona lemons that may be shipped to market at 330,000 cartons during the period May 3–9, 1987. Such action is needed to balance the supply of fresh lemons with market demand for the period specified, due to the marketing situation confronting the lemon industry.

DATES: Regulation 559 (§ 910.859) is effective for the period May 3–9, 1987.

FOR FURTHER INFORMATION CONTACT: James M. Scanlon, Acting Chief, Marketing Order Administration Branch, F&V, AMS, USDA, Washington, DC 20250, telephone: (202) 447–5697.

SUPPLEMENTARY INFORMATION: This final rule has been reviewed under Executive Order 12291 and Departmental Regulation 1512–1 has been determined to be a "non-major" rule under criteria contained therein.

Pursuant to requirements set forth in the Regulatory Flexibility Act (RFA), the Administrator of the Agricultural Marketing Service has determined that this action will not have a significant economic impact on a substantial number of small entities.

The purpose of the RFA is to fit regulatory actions to the scale of business subject to such actions in order that small businesses will not be unduly or disproportionately burdened. Marketing orders issued pursuant to the Agricultural Marketing Agreement Act, and rules issued thereunder, are unique in that they are brought about through group action of essentially small entities acting on their behalf. Thus, both statutes have small entities orientation and compatibility.

This regulation is issued under Marketing Order No. 910, as amended (7 CFR Part 910) regulating the handling of lemons grown in California and Arizona. The order is effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674). This action is based upon the recommendation and information submitted by the Lemon Administrative Committee and upon other available information. It is found that this action will tend to effectuate the declared policy of the Act.

This regulation is consistent with the marketing policy for 1986–87. The committee met publicly on April 28, 1987, in Los Angeles, California, to consider the current and prospective conditions of supply and demand and recommended by an 11 to 1 vote (with one abstention) a quantity of lemons deemed advisable to be handled during the specified week. The committee reports that the market is good for the larger sizes while the smaller sizes are moving slowly.

It is further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rulemaking, and postpone the effective date until 30 days after publication in the Federal Register (5 U.S.C. 553), because of insufficient time between the date when information became available upon which this regulation is based and the effective date necessary to effectuate the declared purposes of the Act. Interested persons were given an opportunity to submit information and views on the regulation at an open meeting. It is necessary to effectuate the declared purposes of the Act to make these regulatory provisions effective as specified, and handlers have been apprised of such provisions and the effective time.

List of Subjects in 7 CFR Part 910

Marketing agreements and orders, California, Arizona, and Lemons.

For the reasons set forth in the preamble, 7 CFR Part 910 is amended as follows:

PART 910—LEMONS GROWN IN CALIFORNIA AND ARIZONA

1. The authority citation for 7 CFR Part 910 continues to read as follows:

Authority: Secs. 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674.

2. Section 910.859 is added to read as follows:

§ 910.859 Lemon Regulation 559.

The quantity of lemons grown in California and Arizona which may be handled during the period May 3, 1987, through May 9, 1987, is established at 330,000 cartons.

Dated: April 29, 1987.

Ronald L. Cioffi,

Acting Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[FR Doc. 87–10056 Filed 4–30–87; 8:45 am]

BILLING CODE 3410-02-M

DEPARTMENT OF ENERGY

10 CFR Part 962

Radioactive Waste; Byproduct Material

AGENCY: Department of Energy.

ACTION: Final rule.

SUMMARY: The Department of Energy (DOE) today is issuing a final interpretative rule under section 161p. of the Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq.*; hereinafter "the AEA") for the purpose of clarifying DOE's obligations under the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*; hereinafter "RCRA"). The purpose of this final rule is to interpret the AEA definition of the term "byproduct material," set forth in section 11e(1) of that Act (42 U.S.C. 2014(e)(1)), as it applies to DOE owned or produced radioactive waste substances which are also "hazardous waste" within the meaning of RCRA. The effect of this rule is that all DOE radioactive waste which is hazardous under RCRA will be subject to regulation under both RCRA and the AEA. This rule does not affect materials that are defined as byproduct material under section 11e(2) of the Atomic Energy Act. 11E2

EFFECTIVE DATE: June 1, 1987.

FOR FURTHER INFORMATION CONTACT: Henry K. Garson, Esq., Assistant

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Raymond P. Berube, Acting Director, Office of Environmental Guidance and Compliance, EH-23, Department of Energy, 1000 Independence Avenue SW., Washington DC 20585, Telephone (202) 586-5680.

SUPPLEMENTARY INFORMATION:

Background

RCRA establishes a comprehensive regulatory scheme, administered by the Environmental Protection Agency (EPA) and EPA-authorized States, governing the generation, transportation, treatment, storage and disposal of hazardous waste. Federal agencies are required by section 6001 of RCRA (42 U.S.C. 6961) to comply with the requirements of that regulatory scheme in the same manner, and to the same extent, as any private person or entity. Under section 1004 of RCRA (42 U.S.C. 6903), the "hazardous waste" governed by RCRA is a subset of the statute's definition of "solid waste." The definition of "solid waste," however, expressly excludes "source, special nuclear, or byproduct material as defined by the Atomic Energy Act." Those materials, instead, continue to be regulated under the AEA either by the Nuclear Regulatory Commission (NRC) or by DOE.

The AEA's definitions of the terms "source material" and "special nuclear material" are specific in nature, and present no particular difficulty of interpretation. The AEA's definition of "byproduct material," in contrast, speaks only generally of "any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material." AEA section 11e(1), 42 U.S.C. 2014(e)(1). The lack of specificity in this definition, coupled with RCRA's exclusion of byproduct material from its hazardous waste regulatory scheme, has raised a question concerning which DOE radioactive waste streams, if any, should be considered byproduct material not subject to regulation under RCRA.

The Proposed Rule

On November 1, 1985, DOE published a notice of proposed rulemaking (50 FR 45736) in which it proposed to adopt an interpretative rule clarifying RCRA's applicability to DOE radioactive waste. Briefly summarized, that proposed rule would have established a distinction between "direct process" radioactive waste (*i.e.* waste directly yielded in, or necessary to, the process of producing and utilizing special nuclear material) and other radioactive waste less proximate to the physical process of producing or utilizing special nuclear material. Under the proposed rule, direct process waste, even if it contained hazardous material, would have been regarded as byproduct material, and thus would be regulated exclusively under the AEA. Any radioactive waste other than direct process waste, if it contained hazardous material, would have been considered "mixed waste" subject to regulation under both RCRA and the AEA.

As DOE noted the Federal Register preamble to the proposed rule, the legislative history of the AEA provides little guidance in interpreting the statutory definition of byproduct material, and application of the definition has not been clarified by judicial interpretation. Because the plain words of the definition are keyed to the process for producing and utilizing special nuclear material, however, it seemed that process must be regarded as a critical factor in determining whether particular radioactive materials fell within the definition. Accordingly, one significant feature of the "direct process" approach, as discussed in the preamble to the proposed rule, was its congeniality with the bare text of the statutory definition of byproduct material.

A major consequence of the "direct process" approach was the fact that it would result in the exclusive regulation of all direct process waste under the AEA. Just as the legislative history of the AEA provides little help in interpreting the statutory definition of byproduct material, the legislative history of RCRA is silent on the intended effect of RCRA's exclusion from its coverage of source, special nuclear and byproduct material. Nevertheless, DOE assumed that that exclusion was intended by the Congress to be applied to radioactive wastes in their real-world configuration. Virtually all radioactive waste substances are contained, dissolved or suspended in a nonradioactive medium from which their physical separation is impracticable. Accordingly, DOE noted in proposing the "direct process" approach that unless some radioactive waste streams were considered to be byproduct material *in their entirety*, RCRA's exclusion of byproduct material might reasonably be perceived to have little effect, because RCRA's application to a nuclear waste's nonradioactive medium would appear to entail at least the indirect regulation of the radionuclide dispersed in the medium.

Such a result, in DOE's view, presented substantial legal questions. Previous court decisions had settled the point that the AEA generally vests in DOE and the NRC exclusive regulatory authority over the radiation hazards associated with source, special nuclear and byproduct material, and generally preempts the States from regulating those materials.[1] It had also been held that when the radiation and nonradiation hazards of a waste containing byproduct material are inseparable, regulatory action under the AEA preempts the incompatible exercise of general state nuisance authority over the waste.[2] These decisions, read in conjunction with RCRA's affirmation of state regulation as an acceptable, indeed a favored, alternative to EPA regulation, were viewed by DOE as suggesting that an appropriate interpretation of byproduct material would, like the proposed "direct process" approach, exclude certain radioactive waste streams, in their entirety, from regulation under RCRA.

Development of the Final Rule

At the time of its publication of the proposed rule, DOE made available to the public reports provisionally identifying which of the waste streams generated at its facilities would be considered "direct process waste" subject only to AEA regulation under the proposed rule, and which of those waste streams would be considered "mixed waste" subject to regulation under both RCRA and the AEA. DOE sought and received public comments on those reports, and on the proposed rule itself.

During the period since the proposal was made, DOE has had the opportunity further to review the pertinent legal authorities, as well as to consider the comments received, the provisional waste stream identifications, DOE's additional operating experience, and related actions taken by other federal agencies. Based on the review, DOE is today publishing a final rule that adopts a narrower interpretation of byproduct material than the "direct process" approach that was originally proposed. For the reasons set forth below, the final rule provides that only the actual radionuclides in DOE waste streams

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[1] *See* Northern States Power Co. v. Minnesota, 447 F.2d 1143 (8th Cir. 1971), *aff'd*. 405 U.S. 1035 (1972). *See also* Train v. Colorado Pub. Interest Research Group, 426 U.S. 1 (1976).

[2] Brown v. Kerr-McGee Chem. Corp., 767 F.2d 1234, 1240 (7th Cir. 1985).

will be considered byproduct material. The nonradioactive components of those waste streams, under the final rule, will be subject to regulation under RCRA to the extent that they contain hazardous components.

Discussion

The overriding question raised by the public comments on the proposed rule was whether RCRA's exclusion of source, special nuclear and byproduct material from regulation under that Act was intended by the Congress to exempt entire waste streams, rather than exempting only the radionuclides dispersed or suspended in a waste stream. As discussed above, the proposed rule woud have treated any "direct process" waste as byproduct material in its entirety, even if the waste contained a nonradioactive chemically hazardous component that would otherwise have been subject to regulation under RCRA. Thus, the characterization of a waste stream as "direct process" waste would have foreclosed the application of RCRA to that stream irrespective of whether the associated non-radiological environmental hazard was significant. In the opinion of many commenters, this was a significant disadvantage to the "direct process" approach. In view of this concern, some commenters suggested that DOE instead adopt an alternative interpretative approach that would permit the application of each regulatory regime to the type of hazard that it was designed to control, *i.e.* that would apply the AEA to ensure protection against the radiological hazard of this waste, and apply RCRA to ensure protection against any associated chemical hazard.

DOE's operational experience since the publication of the proposed rule lends support to the concern expressed by these commenters. In its efforts provisionally to apply the "direct process" approach, DOE found a number of instances in which otherwise identical wastes were sometimes found subject to RCRA, and other times were found subject only to the AEA, due solely to the wastes' different proximity to the physical process of producing and utilizing special nuclear material. While distinctions of this type are not entirely incompatible with the process-oriented language employed by the Congress in the AEA to define byproducts material, DOE has concluded after further analysis that the better view of the law is one that avoids such artificial distinctions and that affords the greatest scope to the RCRA regulatory scheme, consistent with the requirements of the AEA. *See Legal Envtl. Assistance Found v. Hodel*, 586 F. Supp. 1163 (E.D. Tenn. 1984).

As noted in the foregoing discussion and in the preamble to the proposed rule, the legislative histories of both RCRA and the AEA provide little assistance in interpreting either the meaning of the term byproduct material or the intended effect of RCRA's exclusion of byproduct material from the hazardous waste regulatory program. The House Committee on Interstate and Foreign Commerce, in reporting its version of the bill that ultimately was enacted as RCRA, alluded to a 1973 leak of radioactive waste from a DOE underground storage tank at Richland, Washington as an "actual instance [ ] of damage caused by current hazardous waste disposal practices." H.R. Rep. No. 1491, 94th Cong., 2d Sess., pt. 1, at 17–19, *reprinted in* 1976 U.S. Code Cong. & Admin. News 6238, 6254–57. This reference is a less than certain indication that the Congress viewed such radioactive waste as "hazardous waste" subject to RCRA. Unlike RCRA as finally enacted, the bill [3] which this House Report accompanied contained no provision excluding source, special nuclear and byproduct material, thereby minimizing the probative value of the Committee's Richland reference in construing the statute that was ultimately enacted. Nevertheless, the Committee's reference should not be entirely discounted as evidence that the Congress in considering RCRA was concerned with unregulated hazards presented by radioactive waste, even though the AEA already provided sufficient regulatory control over the radiological hazards associated with such waste.

No court has addressed the specific question whether the entirety of a nuclear waste, or only its radioactive component, is byproduct material.[4] The decision in Brown v. Kerr-McGee Chem. Corp., supra note 2, clearly holds that the States cannot employ their general authority to abate nuisances to regulate even the nonradiation hazard of a waste incompatibly with regulation done under the AEA where the radiation and nonradiation hazards are inseparable. Nothing in that decision, however, is incompatible with concurrent regulation, by the states or EPA, of the nonradioactive component of a nuclear waste, subject to paramount requirements of the AEA.[5]

In this context, DOE notes that at the time the Congress was considering RCRA, the Supreme Court very recently had published its decision in Train v. Colorado Pub. Interest Research Group, 426 U.S. 1 (1976). That case decided whether the Federal Water Pollution Control Act, as amended in 1972, applied to source, special nuclear and byproduct material discharged into navigable waters by government-owned production facilities and commercial power reactors regulated by the AEA. After concluding that the Federal Water Pollution Control Act, properly construed, did not authorize EPA or the States to regulate source, special nuclear and byproduct material, the Court rejected the contention that the Water Act contemplated joint regulation of source, special nuclear or byproduct material effluents. 426 U.S. at 15. The practical effect of the Court's decision, however, was a regime of concurrent regulation, by different authorities, of effluent streams containing both radioactive and nonradioactive components. Specifically, the decision left EPA and the States free to regulate, under the Water Act, the nonradioactive component of liquid effluents from nuclear facilities, while reserving to the NRC and DOE's predecessor agency all regulatory authority over the source, special nuclear and byproduct materials contained in those same effluent streams.

The legislative history of RCRA contains no mention of the *Train* decision. However, the Congress is presumed to be aware of decisions of the Supreme Court,[6] and in fact employed in RCRA the same AEA terms, including byproduct material, that the Court had extracted from the Water Act's legislative history to emphasize in its analysis in *Train*. Thus it is at least equally logical to infer that the Congress, in selecting the AEA terms emphasized in *Train*, anticipated a similar result under RCRA as it is to posit—as did the proposed rule—that RCRA's exclusion of byproduct material must have been intended to exclude in their entirety some waste streams from regulation under RCRA.

In short, while the specific legal authorities relied upon by DOE in developing the proposed rule appeared consistent with the "direct process"

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[3] H.R. 14496, 94th Cong., 2d Sess. (1976).

[4] Two decisions have upheld the authority of the NRC's predecessor agency, the Atomic Energy Commission, to license low level radioactive waste as byproduct material. Harris County v. United States, 292 F.2d 370 (5th Cir. 1961); City of New Britain v. Atomic Energy Comm'n, 308 F.2d 645 (D.C. Cir. 1962). In neither case, however, did the court reach the specific question whether the entirety of the waste, or only its radioactive component, is byproduct material.

[5] *See* discussion of RCRA section 1006(a), U.S.C. 6905(a), *infra*.

[6] Cary v. Curtis, 44 U.S. (3 How.) 236, 240 (1845).

approach, those authorities are equally consistent with the narrower interpretation of byproduct material that was suggested by the majority of the commenters on the proposed rule. More importantly, DOE is now persuaded after further analysis that the "direct process" approach does not reflect the better view of the law.

RCRA is a remedial statute, and as such must be liberally construed to effectuate the remedial purpose for which it was enacted.[7] The intended comprehensiveness of RCRA's regulatory scheme is evident from the Act's legislative history. The principal sponsor of the legislation in the Senate emphasized that it represented "a major commitment of federal assistance to state and local government efforts to meet [hazardous and solid waste] problems in a comprehensive and effective manner." [8] The House Committee on Interstate and Foreign Commerce regarded the legislation as closing the "last remaining loophole" [9] in a framework of national environmental laws that already included the Clear Air Amendments of 1970, the Federal Water Pollution Control Act Amendments of 1972, and the Safe Drinking Water Act.

Moreover, interpretation of RCRA's exclusion of byproduct material must not focus solely on that exclusion, read in isolation. Instead, the exclusion can be viewed properly only in the context of the whole statute, as well as its object and policy.[10] In this connection, it seems apparent that RCRA was intended to have some applicability to materials that were already regulated under the AEA. Section 1006(a) of RCRA, 42 U.S.C. 6905(a), specifies that as to "any activity or substance" subject to the AEA, RCRA regulation must yield, but only to the extent of "inconsistent" requirements stemming from the AEA. The archetypal "substances" that can fairly be described as "subject to" the AEA are substances containing source, special nuclear and byproduct material, to which the AEA expressly is directed. Thus the language of section 1006(a) seems generally to contemplate complementary regulation under both statutes of substances that under prior law might have been regulated exclusively by the AEA.

Viewed in this light, RCRA's definitional exclusion of source, special nuclear and byproduct material assumes a narrower significance than was suggested in the proposed rule. Instead of referring to any waste stream in its entirety, the exclusion appears directed only to the radioactive component of a nuclear waste. The result, however, is a more harmonious view of the statute as a whole. Read together, DOE believes that the definitional exclusion and the language of section 1006(a) are correctly understood to provide for the regulation under RCRA of all hazardous waste, including waste that is also radioactive. RCRA does not apply to the radioactive component of such a waste, however, if it is source, special nuclear or byproduct material. Instead, the AEA applies to that radioactive component. Finally, if the application of both regulatory regimes proves conflicting in specific instances, RCRA yields to the AEA.

In addition to construing the whole of RCRA in harmony, this interpretation results in according both RCRA and the AEA the greatest capacity to regulate effectively the special type of hazard that each statute was designed to control. Since the two statutes are not in irreconcilable conflict, but are capable of co-existence, they should be interpreted such that the operation and objectives of each are facilitated. *See Radzanower* v. *Touche Ross & Co.*, 426 U.S. 148, 155 (1976). However, in issuing today's final rule, DOE emphasizes the importance of section 1006(a) in resolving any particular inconsistencies that may occur between the requirements of RCRA and those of the AEA. DOE is the federal agency responsible for authoritatively construing the requirements of the AEA, as that Act applies to DOE activities. While DOE does not anticipate that adoption of today's final rule will lead to frequent cases of "inconsistency," section 1006(a) provides critical assurance that the implementation of the final rule will present no impediment to the maintenance of protection from radiological hazards as well as DOE's accomplishment of its other statutory responsibilities under the AEA.

A final consideration in adopting today's final rule is the rule's consistency with the legal position adopted by EPA and the NRC in resolving questions concerning RCRA's application at NRC-licensed commercial nuclear facilities. In a recent guidance document developed jointly by EPA and the NRC,[11] the two agencies stated that for commercial low-level radioactive waste containing a hazardous component, they will regard only the actual radionuclides in the waste as being exempt from RCRA. Today's final rule adopts the same approach for all DOE radioactive and chemically hazardous waste.

Accordingly, for purposes of RCRA, DOE interprets the term byproduct material to refer only to the radioactive component of a nuclear waste. The nonradioactive chemically hazardous component of the waste will be subject to regulation under RCRA.

Procedural Matters

A. Executive Order 12291

This rule has been reviewed in accordance with Executive Order 12291. The rule is not classified as a major rule because it does not meet the criteria for major rules established by that Order.

B. National Environmental Policy Act

This rule is an interpretative rule intended only to clarify the meaning of a statutory definition. Issuance of the rule will have no environmental impact.

C. Regulatory Flexibility Act Certification

The rule will not have a significant impact on a substantial number of small entities.

D. Paperwork Reduction Act of 1980

There are no information collection requirements in the rule.

List of Subjects in 10 CFR Part 962

Nuclear materials, Byproduct material.

Issued in Washington, DC, April 27, 1987.

J. Michael Farrell,

General Counsel.

In consideration of the foregoing, Part 962 is added to 10 CFR Chapter III, to read as follows:

PART 962—BYPRODUCT MATERIAL

Authority: The Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq.*); Energy Reorganization Act of 1974 (42 U.S.C. 5801 *et seq.*); Department of Energy Organization Act (42 U.S.C. 7101 *et seq.*); Nuclear Waste Policy Act (Pub. L. 97-425, 96 Stat. 2201).

§ 962.1 Scope.

This Part applies only to radioactive waste substances which are owned or produced by the Department of Energy at facilities owned or operated by or for

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[7] *See, e.g.*, Westinghouse Elec. Corp. v. Pacific Gas & Elec. Co., 326 F.2d 575 (9th Cir. 1964).

[8] 122 Cong. Rec. 21405 (1976) (remarks of Sen. Randolph).

[9] H.R. Rep. No. 94-1491, 94th Cong., 2d Sess., pt. 1, at 4, *reprinted in* 1976 U.S. Code Cong. & Ad. News 6238, 6241.

[10] *See, e.g.*, Richards v. United States, 369 U.S. 1, 11 (1962).

[11] "Guidance on the Definition and Identification of Commercial Mixed Low-Level Radioactive and Hazardous Waste," Jan. 8, 1987.

the Department of Energy under the Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq*). This Part does not apply to substances which are not owned or produced by the Department of Energy.

§ 962.2 Purpose.

The purpose of this Part is to clarify the meaning of the term "byproduct material" under section 11e(1) of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(1)) for use only in determining the Department of Energy's obligations under the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*) with regard to radioactive waste substances owned or produced by the Department of Energy pursuant to the exercise of its responsibilities under the Atomic Energy Act of 1954. This Part does not affect materials defined as byproduct material under section 11e(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

§ 962.3 Byproduct material.

(a) For purposes of this Part, the term "byproduct material" means any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material.

(b) For purposes of determining the applicability of the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*) to any radioactive waste substance owned or produced by the Department of Energy pursuant to the exercise of its atomic energy research, development, testing and production responsibilities under the Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq.*), the words "any radioactive material," as used in subsection (a), refer only to the actual radionuclides dispersed or suspended in the waste substance. The nonradioactive hazardous component of the waste substance will be subject to regulation under the Resource Conservation and Recovery Act.

[FR Doc. 87-9885 Filed 4-30-87; 8:45 am]

BILLING CODE 6450-01-M

FEDERAL RESERVE SYSTEM

12 CFR Parts 207, 220, 221 and 224

Regulations G, T, U and X; Securities Credit Transactions; List of Marginable OTC Stocks

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Final rule; determination of applicability of regulations.

SUMMARY: The List of Marginable OTC Stocks is comprised of stocks traded over-the-counter (OTC) that have been determined by the Board of Governors of the Federal Reserve System to be subject to the margin requirements under certain Federal Reserve regulations. The List is published four times a year by the Board as a guide for lenders subject to the regulations and the general public. This document sets forth additions to or deletions from the previously published List effective February 10, 1987 and will serve to give notice to the public about the changed status of certain stocks.

EFFECTIVE DATE: May 12, 1987.

FOR FURTHER INFORMATION CONTACT: Peggy Wolffrum, Research Assistant, Division of Banking Supervision and Regulation, (202)-452-2781. For the hearing impaired only, Earnestine Hill or Dorothea Thompson, Telecommunications Device for the Deaf (TDD) (202)-452-3544, Board of Governors of the Federal Reserve System, Washington, DC 20551.

SUPPLEMENTARY INFORMATION: Set forth below are stocks representing additions to or deletions from the Board's List of Marginable OTC Stocks. A copy of the complete List incorporating these additions and deletions is available from the Federal Reserve Banks. This List supersedes the last complete List which was effective February 10, 1987. (Additions and deletions for that List were published at 52 FR 3217, February 3, 1987). The current List includes those stocks that meet the criteria specified by the Board of Governors in Regulations G, T, U and X (12 CFR Parts 207, 220, 221 and 224, respectively). These stocks have the degree of national investor interest, the depth and breadth of market, and the availability of information respecting the stock and its issuer to warrant regulation in the same fashion as exchange-traded securities. The List also includes any stock designated under an SEC rule as qualified for trading in the national market system (NMS Security). Additional OTC stocks may be designated as NMS securities in the interim between the Board's quarterly publications. They will become automatically marginable at broker-dealers upon the effective date of their NMS designation. The names of these stocks are available at the Board and the Securities and Exchange Commission and will be incorporated into the Board's next quarterly List.

The requirements of 5 U.S.C. 553 with respect to notice and public participation were not followed in connection with the issuance of this amendment due to the objective character of the criteria for inclusion and continued inclusion on the List specified in 12 CFR 207.6 (a) and (b), 220.17 (a) and (b), and 221.7 (a) and (b). No additional useful information would be gained by public participation. The full requirements of 5 U.S.C. section 553 with respect to deferred effective date have not been followed in connection with the issuance of this amendment because the Board finds that it is in the public interest to facilitate investment and credit decisions based in whole or in part upon the composition of this List as soon as possible. The Board has responded to a request by the public and allowed a two-week delay before the List is effective.

List of Subjects

12 CFR Part 207

Banks, Banking, Credit, Federal Reserve System, Margin, Margin requirements, National Market System (NMS Security), Reporting and recordkeeping requirements, Securities.

12 CFR Part 220

Banks, Banking, Brokers, Credit, Federal Reserve System, Margin, Margin requirements, Investments, National Market System (NMS Security), Reporting and recordkeeping requirements, Securities.

12 CFR Part 221

Banks, Banking, Credit, Federal Reserve System, Margin, Margin requirements, Securities, National Market System (NMS Security), Reporting and recordkeeping requirements.

12 CFR Part 224

Banks, Banking, Borrowers, Credit, Federal Reserve System, Margin, Margin requirements, Reporting and recordkeeping requirements, Securities.

Accordingly, pursuant to the authority of sections 7 and 23 of the Securities Exchange Act of 1934, as amended (15 U.S.C. 78g and 78w), and in accordance with 12 CFR 207.2(k) and 207.6(c) (Regulation G), 12 CFR 220.2(s) and 220.17(c) (Regulation T), and 12 CFR 221.2(j) and 221.7(c) (Regulation U), there is set forth below a listing of deletions from and additions to the Board's List:

Deletions From List

Stocks Removed for Failing Continued Listing Requirements

American Aggregates Corporation
No par common
Bio-Medicus, Inc.
Warrants (expire 08-31-88)

Enclosure 2

Position Paper

on the

Acceptability for Disposal of FEMP Operable Unit 4

Residues as Low-Level Radioactive Waste at the

Nevada Test Site

Rev. 1.0

April 2000

Wendy A Clayton

Reviewed: Wendy A. Clayton, DOE/NV
Low-Level Waste Project Manager

4/26/2000
Date

Jhon T Carilli

Concurred: Jhon T. Carilli, DOE/NV
RCRA Program Manager

4/27/00
Date

Sharon A. Hejazi

Concurred: Sharon A. Hejazi, DOE/NV
Office of Chief Counsel

5/1/00
Date

E. Frank Di Sanza

Approved: E. Frank Di Sanza, DOE/NV
Waste Management Division Director

5/8/2000
Date:

Executive Summary

The Fernald Environmental Management Project (FEMP) has applied to the DOE Nevada Operations Office (DOE/NV) for approval to dispose of treated uranium residues from FEMP Operable Unit 4 (OU-4), at the Nevada Test Site (NTS) as a low-level radioactive waste. Removal of the OU-4 materials, and the subsequent treatment, shipment, and disposal are mandated though a Record of Decision (ROD) driven by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The OU-4 residues were generated by the processing of pitchblende ores and concentrated uranium ores at the FEMP and other Department of Energy (DOE) facilities. The majority of the ores originated from the Shinkolobwe Mine in the Belgian Congo; the balance of the ores originated at the Rum Jungle and Radium Hill mines in Australia. The uranium metals processed from these ores were used in the production of special nuclear material, utilized in support of United States defense programs. The waste is an 11e.(2) byproduct material as defined by the Atomic Energy Act (AEA) of 1954, as amended.

The AEA identifies the DOE as the authority for disposal of certain radioactive wastes associated with the extraction and enrichment of uranium, which has been used in the production of special nuclear material. Some of these materials, when determined to be a waste, are excluded from regulation under the Resource Conservation and Recovery Act (RCRA), as amended. A specific type of material known as "11e.(2) byproduct material" is one such waste. DOE Order 435.1 continues the policy of allowing the Department to manage small quantities of 11e.(2) byproduct material as low-level waste at (LLW) DOE LLW disposal facilities.

The DOE recently issued Order 435.1 that establishes the requirements for the management of DOE radioactive wastes. DOE/NV, as a site operating under the Necessary and Sufficient (N&S) Standards protocol, must first review the requirements prior to adopting a new DOE Order. As such, DOE/NV will review the work activities associated with radioactive waste management, identify the associated hazards, and determine the standards to be adopted to mitigate those hazards. It is expected that most of the requirements found in DOE Order 435.1 will be adopted. For the sake of brevity, only the current DOE Order 435.1 is referenced in the body of this Position Paper. Once the requirements have been identified, they will be further defined in a DOE/NV Manual. The Manual and its associated standards will establish the requirements by which DOE/NV will manage their radioactive waste. Throughout this review process, DOE/NV will continue its policy of meeting the intent of the previous and current DOE Orders for the management of radioactive waste.

The purpose of this position paper is to address the issues associated with the acceptance and disposal of this waste at the NTS. Additionally, this paper defines the DOE/NV position regarding the acceptance and management of this waste, and those of similar origin and nature that may be offered for disposal in the future.

Definitions

11e.(2) Byproduct Material. A specific type of byproduct material defined at Section 11e.(2) of the AEA, 11e.(2) comprises the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content. [Source: AEA of 1954, as amended, 42 U.S.C. Section 2014(e)(2)]

AEA, as amended, 42 U.S.C. 2011 et seq., enacted by Public Law No. 83-703. The AEA ensures proper management, production, possession, and use of radioactive materials. The Act also provides the Department with authority for developing generally applicable standards for protecting the environment from radioactive materials.

CERCLA of 1980, 42 U.S.C. 9601, enacted by Pub. L. No. 96-510, also known as Superfund: Amended in 1986 by the Superfund Amendments and Reauthorization Act, Public Law No. 99-499. CERCLA provides a statutory framework for the cleanup of waste sites containing hazardous substances and, as amended by the Superfund Amendments and Reauthorization Act, provides an emergency response program in the event of a release (or threat of a release) of a hazardous substance to the environment. CERCLA's goal is to provide for response and remediation of environmental problems that are not adequately covered by permit programs of other environmental laws, such as the Clean Air Act, the Clean Water Act, the RCRA, and the AEA.

DOE Order 435.1 - Radioactive Waste Management. The purpose of DOE Order 435.1 (previously 5820.2A) is to resolve high priority radioactive waste management issues; establish policy, requirements, and guidance to ensure that management of DOE's radioactive waste protects worker and public health and safety, the environment, and is cost effective; and assign responsibilities for implementing the Order. The Order includes requirements for the management of radioactive waste, including High-Level Waste (HLW), Transuranic (TRU) Waste, LLW, wastes containing byproduct material and naturally occurring and accelerator produced radioactive material, as defined by section 11e.(2) of the AEA, and wastes from decontamination and decommissioning of radioactively contaminated facilities.

DOE G 435.1 – 1 Implementation Guide for DOE Manual, Radioactive Waste Management. The purpose of the Implementation Guide is to provide detailed guidance and examples that are useful in implementing the DOE Manual for Radioactive Waste Management.

DOE M 435.1 – 1 Manual for DOE Order 435.1, Radioactive Waste Management. The DOE Manual for Radioactive Waste Management provides the technical basis for waste management requirements and policies, presented in DOE Order 435.1.

Land Disposal Restrictions. As codified in 40 CFR 268, Land Disposal Restrictions (LDRs) require the use of the best demonstrated available technologies to treat certain hazardous waste and other waste containing certain hazardous components before land disposal to destroy or immobilize hazardous constituents that might migrate into soil and groundwater. The LDRs also prohibit storing waste that requires treatment, except to facilitate proper recovery, treatment, or disposal.

Low-Level Radioactive Waste. Low-level radioactive waste is radioactive waste that is not high-level radioactive waste, spent nuclear fuel, TRU waste, or byproduct material (as defined in section 11e.(2) of the AEA of 1954, as amended) [Source: LLW Policy Act].

ROD. A ROD. in accordance with CERCLA regulations codified at 40 CFR 300, is prepared after an environmental remedy has been selected. In the ROD, the Environmental Protection Agency (EPA) states its remedial decision; identifies and discusses the other remedies considered, and states why one remedy was preferred over the others; states the factors entering into EPA's decision.

RCRA of 1976, 42 U.S.C. 6901, enacted by Public Law No. 94580 as amended. RCRA was enacted to ensure the safe and environmentally responsible management of hazardous and nonhazardous solid waste, and to promote resource recovery techniques to minimize waste volumes. Regulations issued by EPA, under RCRA, set forth a comprehensive program to provide "cradle to grave" control of hazardous waste by requiring generators and transporters of hazardous waste, as well as owners and operators of treatment, storage, and disposal facilities, to meet specific standards and procedures. Hazardous waste is defined under the RCRA as a waste that poses a potential hazard to human health or the environment when improperly treated, stored, or disposed. The Act includes requirements for locating and operating treatment, storage, and disposal facilities.

Uranium Mill Tailings Radiation Control Act of 1978, Public Law 89-604, as amended. The Uranium Mill Tailings Radiation Control Act directs the DOE to stabilize and control releases of radioactive and toxic constituents from uranium mill sites contaminated as a result of the extraction of uranium or thorium ores used in nuclear weapons production.

Universal Treatment Standards. As codified in 40 CFR 268.48, this standard is applicable to hazardous waste or waste derived from the treatment of hazardous waste. The Universal Treatment Standards (UTSs) identify the hazardous constituents, along with the concentration based treatment standards required to be achieved prior to land disposal.

Summary of Issues Associated with FEMP Operable Unit 4 Waste

Three types of issues are present and are addressed. Regulatory issues stem from the applicability of definitions and material status. The next set of issues relate to the interpretation and applicability of the Nevada Test Site Waste Acceptance Criteria (NTSWAC). Finally, there is the issue of the actual physical risks associated with the waste and how these risks are best managed.

A. Regulatory Issues

Does the OU-4 material, declared to be 11e.(2) byproduct material by the generator, meet the definition of 11e.(2) byproduct material? If so, are any components of the waste stream subject to RCRA?

In DOE's interpretive rule published in the Federal Register on May 1, 1987, DOE clarified its position on applicability of RCRA to 11e.(1) byproduct material. In this rule. DOE identifies only the nonradiologic, hazardous constituents of the 11(e)(1) byproduct waste streams as subject to regulation under RCRA. The rule cites EPA-Nuclear Regulatory Commission (NRC) Guidance on the Definition and Identification of Commercial Mixed Low-Level Radioactive and Hazardous Waste, and notes that the DOE's interpretation is consistent with the interpretation made by EPA and the NRC.

The following section from the EPA-NRC guidance explains the 11e.(2) byproduct definition: "Except for certain ores containing source material, which are defined as source material in 10 CFR 40.4, and uranium and thorium mill tailings or wastes [emphasis added], NRC and EPA interpret the definitions of source, special nuclear, and byproduct materials to include only the radioactive elements themselves." Thus, the excepted uranium and thorium mill tailings or wastes, which include a mixture of both radiologic and nonradiologic components, comprise the material known as 11e.(2) byproduct material.

Although uranium and thorium mill tailings and wastes naturally contain numerous metals that would otherwise meet the definition of a RCRA hazardous waste, one can conclude that such an 11e.(2) byproduct waste stream, including any constituents that could meet the definition of a hazardous waste. are intended to be excluded from regulation under RCRA. at 40 CFR 261.4(a)(4), which states, "(T)he following materials are not solid wastes for the purpose of this part: . . . (4) Source, special nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq." Thus, the metals in the FEMP OU-4 11e.(2) byproduct waste stream are exempt from RCRA. Additionally, because the 11e.(2) byproduct material is excluded from regulation under RCRA, listed wastes identified at 40 CFR 261 Subpart D cannot be present within the waste stream.

Does the quantity of waste offered by FEMP meet the definition of a "small quantity" as described in DOE Order 435.1? Does the waste offered by FEMP meet the definition of a low-level radioactive waste?

DOE derives authority from the AEA to manage small quantities of 11e.(2) byproduct material as "low-level waste" so that it may dispose of such small quantities at DOE LLW disposal facilities. As stated in DOE guidance (DOE M 435.1, 1999), such quantities must not be "too large for acceptance at DOE low-level waste disposal sites," and such wastes must meet the requirements for LLW in accordance with DOE Order 435.1. Thus, it must be determined whether or not the FEMP OU-4 waste stream is "too large for acceptance" at the NTS disposal site.

The quantity of waste offered by FEMP, when compared to the capacity available at NTS for its disposal, is easily accommodated. For the FEMP OU-4 waste stream, the total treated waste volume is estimated to be slightly less than 14,000 m^3. The available capacity for disposal of low-level radioactive waste at the NTS is on the order of 480,000 m^3 at the time of this writing, and can readily be increased to 3.2 million m^3 (DOE, 1998). Thus, the FEMP OU-4 waste represents less than 3 percent of the available NTS waste disposal capacity.

Additionally the OU-4 waste stream is not a "large volume of diffuse material at several locations," or a mill site, as would be addressed pursuant to the UMTRCA [Uranium Mill Tailings Radiation Control Act of 1978]. Neither the FEMP Site nor the NTS have been designated by the Secretary of Energy as sites appropriate to be regulated pursuant to the provisions of UMTRCA. Thus, the UMTRCA and its implementing regulations are not applicable to the specific wastes considered in this Position Paper. "Small volume" and "small quantity" used in the DOE Orders and guidance have no relation to the term, "low-volume generator" described in the NTSWAC. The latter term (low-volume generator), defined for establishing generator compliance requirements with the NTSWAC, relates to an annual volumetric waste generation rate.

FEMP has applied this 11e.(2) byproduct material to LLW deviation in pursuing disposal of the Silo 3 waste stream, a subset of the OU-4 wastes, at the NTS. At the point of origin, that is Silo 3, the waste is an 11e.(2) byproduct material and is excluded from compliance with the standards of RCRA. The 11e.(2) byproduct, RCRA-exempt waste will then be treated pursuant to the CERCLA ROD to stabilize hazardous constituents, and to greatly reduce radon emanations. This treated 11e.(2) byproduct waste stream will then be received as a LLW, pursuant to the provisions of DOE Order 435.1. Thus, the FEMP Silo 3 waste stream, as well as similar OU-4 waste streams, may be considered to be LLW at the point of receipt, and complies with the NTSWAC for the management of LLWs.

B. Compliance with the NTSWAC

To what extent must the Operable Unit 4 waste meet the NTSWAC?
Do the exclusions of 40 CFR 261.4(a)(4) carry through into the NTSWAC?

The FEMP waste is a treated 11e.(2) byproduct material and is managed as a LLW pursuant to DOE Order 435.1. Because of the exclusion from RCRA at 40 CFR 261.4(a)(4), the waste is not subject to the provisions of 40 CFR 261 through 268. ***However, since it is, pursuant to the DOE Order, managed as a LLW, the OU-4 waste stream must meet the NTSWAC, and, therefore may not exhibit what otherwise would be a RCRA characteristic, regardless of the exclusion defined for byproduct material at 40 CFR 261.4(a)(4).***

Because the waste was excluded from the provisions of RCRA, the waste offered for disposal cannot contain a "listed" waste, as defined at 40 CFR 261 Subpart D. Assuming FEMP demonstrates that the waste does not exhibit what would otherwise be a characteristic of hazardous waste, the waste will meet the NTSWAC. Additionally, since the OU-4 waste has never been regulated as a RCRA mixed waste, the waste would not be required to meet the RCRA LDR UTSs.

The generator would be responsible for demonstrating compliance with the NTSWAC. Specifically, the generator should document the absence of the types of hazardous characteristics described at 40 CFR 261 Subpart C, especially those toxic constituents identified in Table 1 of 40 CFR 261.24 that may have been used in any processes, regardless of the waste's regulatory status. Approval for NTS acceptance of the waste stream would be documented under separate cover, following a successful review by the DOE/NV Radioactive Waste Acceptance Program.

C. Physical Risks of Managing the Silo 3 Waste

What are the physical risks to the workers, environment, and public posed by the FEMP Operable Unit 4 waste?

The physical risks to the workers, environment, and public posed by the FEMP OU-4 waste are primarily radiological, and secondarily, hazardous. Radiologic hazards can be mitigated through disposal at greater depth. The waste, regardless of its legal status, exhibits the properties of a treated, non-LDR compliant low-level radioactive mixed-waste. For this reason, disposal in an area designed to monitor such potential hazards is advisable. The panel recognizes, however, that operational considerations associated with the radiologic hazards of the waste, might take precedent in establishing the final disposal location and configuration.

Conclusions

The DOE/NV Panel concludes the following:

A. Based upon the origin of the materials as described by the generator, the FEMP Operable Unit 4 waste meets the definition of an 11e.(2) byproduct material. Because the volume offered for disposal is small compared to the facility's disposal capacity per DOE 435.1 guidance, the material may be managed as a low-level radioactive waste and may be accepted for disposal at the NTS. As such, the waste must meet the requirements of the NTSWAC. In meeting the NTSWAC, compliance with 40 CFR 261 Subpart D need not be demonstrated since the wastes are 11e.(2) byproduct material and not subject to RCRA.

B. Consistent with the NTSWAC, prior to waste acceptance, FEMP must provide documentation (preferably in the form of analytical results) that the LLW offered for disposal does not exhibit the hazardous characteristics defined at 40 CFR Subpart C (including the toxic characteristics defined at 40 CFR 261.24, Table 1), at the point of offering. Parameters for demonstrating compliance with 40 CFR Subpart C should be based upon constituents and processes used during processing of the material regardless of the material status at time of processing.

C. The FEMP Operable Unit 4 waste would best be managed in an area where groundwater monitoring can be conducted, if deemed appropriate, in the future. For this reason, the panel recommends that Area 5 be considered during the operational review process.

References

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(5) Ohio EPA Concurrence with ESD for UO-4 Remedial Action, (6) EPA Region IX CERCLA Off-site Rule Approval for Disposal of OU-4 11e.(2) material at the NTS, (7) Documentation of Acceptability of Silo 3 Material as 11e.(2) [byproduct material] by Envirocare; DOE Ohio Field Office.

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U.S. EPA, U.S. Nuclear Regulatory Commission, 1998; Guidance on the Definition and Identification of Commercial Mixed Low-Level Radioactive and Hazardous Waste: EPA Mixed Waste Team Home Page URL http:www.epa.gov/radiation/mixed-waste/mw_pg25.htm.

Preparers

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Revised: April 19. 2000

Attachment 1

The language used in the position paper is found in the Implementation Guide for the Manual prepared to assist in implementing 435.1. Language and the examples from the 11e.(2) and Naturally Occurring Radioactive Material Section in the Manual for 435.1 are reproduced below. Also, the Manual for 435.1 refers back to 5820.2A for instructions on managing 11e.(2) as LLW.

11e.(2) and Naturally Occurring Radioactive Material

This section of DOE M 435.1-1 was provided to continue the policies, requirements, and guidance in place under DOE 5820.2A concerning disposal of small quantities of 11e.(2) and naturally occurring radioactive material. Under the Nuclear Waste Policy Act of 1982, as amended, and the Low-Level Radioactive Waste Policy Act, LLW is defined to exclude 11e.(2) byproduct material. However, DOE O 435.1 continues the Department's existing policy that small quantities of these materials may be managed as LLW, in accordance with the LLW requirements of DOE M 435.1-1.

This requirement is not intended to allow large volumes of 11e.(2) material from sites subject to 40 CFR Part 192 to be routinely disposed in a LLW disposal facility. These wastes, waste quantities too large for acceptance at DOE LLW disposal sites, and other 11e.(2) byproduct and naturally occurring radioactive materials that are inappropriate for management as a LLW, are to be managed under the provisions of UMTRCA, 40 CFR Part 192, or DOE 5400.5, Radiation Protection of the Public and the Environment, as applicable. Recognizing DOE's responsibility for properly managing these materials when generated or encountered during cleanups, DOE 5400.5 contains requirements that are applicable for the management of naturally occurring radioactive material waste streams. [Although the Department is unlikely to manage any of these, examples of such wastes are rare earth processing facility wastes, mineral extraction byproducts, such as phosphogypsum and copper tailings, coal ash, and oil and gas extraction byproducts.]

The Department manages other radioactive waste streams that contain naturally occurring radioactive material that are excluded from the definition of LLW. These waste streams are those in which the naturally occurring radioactive material has been technologically-enhanced and intentionally altered for the purpose of utilizing the radioactive properties of the material. Examples of these are sealed sources containing radium and compounds of uranium which no longer are considered source material, but which have not been converted to a form that could be used productively. These waste streams are appropriately managed as LLW to provide adequate protection of workers, the public, and the environment.

To understand what is meant by the term "small quantities," the legislative intent of the UMTRCA as implemented in the policies of the Department provide the needed guidance. In enacting the UMTRCA, Congress addressed a problem of large volumes of diffuse material in several locations that required proper controls. These residual radioactive materials, regulated under UMTRCA, are managed by the Department according to the requirements of 40 CFR Part 192 and disposed at specially designated tailings disposal sites established under the UMTRCA.

It is the policy of the Department that small quantities of naturally occurring and/or 11e.(2) byproduct materials or wastes containing such materials may be disposed in DOE LLW disposal facilities provided that the requirements for disposal of LLW are met.

The requirement, in stating that the disposal requirements in DOE M 435.1-1, Section IV.P must be met, means the naturally occurring or 11e.(2) byproduct material must be included in the performance assessment (PA) and composite analysis (CA) for the facility, that adequate controls are established for the waste stream based on the evaluations, and the minimum disposal requirements of Chapter IV are to be met. The inclusion of a significant quantity of naturally occurring or 11e.(2) byproduct material in a low-level waste disposal facility is expected to result in additional controls for that waste stream due to the risk posed by radon emanation from the waste, where "significant" in this context is to be determined through the PA and CA evaluations and other considerations included in the radioactive waste management basis for the disposal facility.

> Example 1: A significant amount (100,000 cubic meters) of new mill tailings are discovered in a location not previously determined to be contaminated at the UMTRCA site at Slick Rock, CO. These mill tailings will be removed from their location and either be disposed of at the Cheney disposal cell or DOE will pay a UMTRCA Title II site to dispose of the tailings, consistent with UMTRCA, as amended.
>
> Example 2: A small amount (100 cubic meters) of 11e.(2) materials that are similar to mill tailings, but from an apparently different process, are also discovered at this contaminated site near Slick Rock. These materials will also be removed from their current location and managed in the same manner as discussed in Example 1.
>
> Example 3: Some uranium bearing waste from processes undertaken at the Fernald facility is proposed for disposal at the Site Y disposal facility. Sufficient capacity is available to dispose of the amount of the waste to be generated. The waste is included in the PA and CA. and controls are established. These include provisions for stabilizing the waste and placing it in specially designed boxes, for additional analysis of the cover that will eventually be placed on the disposal unit used, and for additional information in the records for the disposal facility concerning the nature of the waste in this specific disposal unit.
>
> Example 4: Small quantities (a few vials) of paints and other items containing radium are discovered among the radioactive materials that DOE has agreed to take possession of from a university professor who retired. DOE has no use for the materials and is not aware of any needs outside of the Department. The material is

considered waste, and is disposed by the laboratory personnel who took possession of the materials as LLW, after consultation with the disposal facility who will receive the waste that the amount is not significant and no additional controls for its disposal are needed.

In addition, naturally occurring or 11e.(2) byproduct material determined to be manageable as LLW that is also mixed with constituents covered under RCRA or the Toxic Substance Control Act must also meet all of the requirements in those laws and be managed as mixed LLW, in accordance with DOE O 435.1 and DOE M 435.1-1.

APPENDIX 2. Chemical and Radiological Analyses of the Fernald Silo 3 Waste

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

CASE NARRATIVE REPORT
for
Westinghouse Savannah River Site
Subcontract No. AB93796N
Job# 00542

November 22, 2000

Laboratory Identification:

General Engineering Laboratories, Inc.

Summary:

Sample receipt

Nine solid samples for Westinghouse Savannah River Site arrived at General Engineering Laboratories, Inc., (GEL) Charleston, South Carolina on October 19, 2000 for analysis. The samples listed on the chain arrived to the laboratory with a cooler temperature of 19° C. A thirty-day turnaround was requested on the chain.

The samples were stored properly according to SW-846 procedures and GEL Standard Operating Procedures (SOP).

The laboratory received the following sample:

Description	Sample Number
32957001	689-1-T
32957002	689-1-B
32957003	689-2-T
32957004	689-2-B
32957005	696-1-T
32957006	696-1-B
32957007	696-2-T
32957008	696-2-B
32957009	696-GRAB
33055001	689-1-T
33055002	689-1-B
33055003	689-2-T
33055004	689-2-B
33055005	696-1-T
33055006	696-1-B
33055007	696-2-T
33055008	696-2-B
33055009	696-GRAB

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are written by analytical fraction in the enclosed narratives.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Level II Certificate of Analysis, QC Sample Summaries, Chain of Custody, Sample Tracking Report, Nonconformance Reports if applicable & Electronic Data Hardcopy Report.

The Level **II** Certificate of Analysis contains the following headings:

Sample ID:	Sample Identification
Lab ID:	This is the laboratory identification number
Matrix:	Sample matrix
Date Collected:	Date of sample collection
Date Received:	Date of sample receipt by the laboratory
Priority:	Internal status of sample turnaround
Collector:	Party responsible for sample collection.

The detail on the Certificate includes the following:

Parameter:	Analyte or characteristic tested for in the sample
Qualifier:	Qualifier used for data interpretation
Result:	Final result of each parameter.
DL:	Method Detection Limit
RL:	Reporting Limit
Units:	Units of final result
DF:	Dilution factor
Analyst:	Initials of analyst who performed the test
Date:	Date of analysis
Time:	Time of analysis
Batch:	Analytical batch in which the sample was analyzed
Method:	Analytical method used for the analysis of the sample. Identified on the report numerically with a corresponding table.
Surrogate Recovery:	Provided for organic analysis only. Surrogate compound identified.
Test:	Analytical test associated with surrogate compound.

Percent%:	Surrogate percent recovery
Acceptable Limits:	Limits established for surrogate recoveries based upon the method requirements.

The QC Summary Report contains the following headings:

Sample Parameter:	Analyte or characteristic tested for in the QC sample
Type:	Type of QC sample (i.e., blank, dup, LCS, LCS dup, MS, MSD)
Batch:	Analytical batch in which the QC sample was analyzed
NOM:	Nominal concentration of the spiking compound
Sample:	Amount of compound found in the sample associated with the QC sample.
QC:	Amount of compound found in the QC sample.
Units:	Units of final result
RPD%:	Relative percent difference between LCS/LCS dup, MS/MSD, and Sample/Sample duplicate
REC%:	Recovery for the control samples
Range:	Acceptance limits for control samples
Analyst:	Initials of analyst who performed the test
Date:	Date of analysis
Time:	Time of analysis

Types of QC samples that may be found on the QC Summary Report are:

Blank:	Results of the blank analysis for the sample batch
Dup:	Duplicate analysis of sample
LCS:	Lab control sample
LCS dup:	Lab control sample duplicate
MS:	Matrix spike
MSD:	Matrix spike duplicate

The following are definitions of reporting limits used at General Engineering Laboratories:

DL	Detection Limit: The minimum level of an analyte that can be determined (identified not quantified) with 99% confidence. The values are normally achieved by preparing and analyzing seven aliquots of laboratory water spiked 1 to 5 times the estimated MDL, taking the standard deviation and multiplying it against the one-tailed t-statistic at 99%. This computed value is then verified for reasonableness by repeating the study using the concentration found in the initial study, calculating an F-ratio, and computing the final limit. Sample specific preparation and dilution factors are applied to these limits when they are reported.

The detection limit is the minimum concentration of a substance that can be identified, measured, and reported with 99% confidence that the analyte concentration is above zero. It answers the question "Is It Present".

QL	Quantitation Limit: The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The QL is generally 5 to 10 times the MDL. However, it may be nominally chosen within these guidelines to simplify data reporting. For many analytes the QL analyte concentration is selected as the lowest non-zero standard in the calibration curve. Sample QL's are highly matrix-dependent. Sample specific preparation and dilution factors are applied to these limits when they are reported. The QL is always ≥ DL
RL	Reporting Limit: Same as the QL except where driven by contract or client specifications. If the sample specific preparation and dilution factors cause the QL to be elevated above the RL, then the QL is used as the RL.

The quantitation limit is the lowest level at which a chemical may be accurately and reproducibly quantitated. It answers the question "HOW MUCH IS PRESENT".

Interpretation of RESULT column on the Certificate of Analysis:

If the final concentration in the sample was found to be above the RL, then the value reported is reported without a flag;

If the final concentration in the sample was found to be below the RL but above the DL, then the value reported is flagged with a "J";

If the final concentration in the sample was found to be below the DL, the value reported is flagged with a "U".

Quality Control Flags

General Engineering Laboratories maintains acceptance criteria for QC samples through use of statistical process control (SPC). The SPC limits are used to qualify data usability. The flagging criterion identified in WSRC AN98 Format does not necessarily coincide with the laboratory SPC criteria. There may be instances where the Electronic Data Deliverable (EDD) has flagged data based on the AN98 criteria and the lab has not identified the data to be outside of established control limits.

Those instances where the QC has not met laboratory SPC established criteria will be noted in the section case narratives that are included in this package.

This data package, to the best of my knowledge, is in compliance with technical and administrative requirements.

Lee M. Heath
Project Manager

Case Narrative for
WSRC006
SDG# 00542
Metals Analysis by ICP
Mercury Analysis by CVAA

Sample Analysis

The following samples were prepared and analyzed according to the methods referenced in the "Method/Analysis Information" section of this narrative:

Sample ID	Client ID
32957001	689-1-T
32957002	689-1-B
32957003	689-2-T
32957004	689-2-B
32957005	696-1-T
32957006	696-1-B
32957007	696-2-T
32957008	696-2-B
32957009	696-GRAB
1000120460	Method Blank (MB) **ICP**-50462/50200
1000120463	Laboratory Control Sample (LCS)
1000120464	689-1-TL (32957001) Serial Dilution (SDILT)
1000120461	689-1-TS (32957001) Matrix Spike (MS)
1000120462	689-1-TSD (32957001) Matrix Spike Duplicate (MSD)
1000120410	Method Blank (MB) **CVAA**-50427/50190
1000120413	Laboratory Control Sample (LCS)
1000120411	689-1-TS (32957001) Matrix Spike (MS)
1000120412	689-1-TSD (32957001) Matrix Spike Duplicate (MSD)

Quality Control (QC) Information:

Method Blank Acceptance

The preparation blanks analyzed with this SDG did not contain analytes of interest at concentrations greater than the reporting limits (RL).

LCS/LCSD Recovery Statement

All LCS spike recoveries for this SDG were within the statistical process control (SPC) limits except antimony and titanium. The recoveries for antimony and titanium did meet the certified limits established by vendor of the LCS source at 118 and 114 percent, respectively. Upon certification of additional LCS data points, the laboratory will update the SPC database to reflect the current instrument readings.

MS/MSD Recovery Statement

Sample 689-1-T (32957001) was designated as the quality control sample for the ICP and CVAA batches. Each batch included a matrix spike (MS) and a matrix spike duplicate (MSD).

The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS analyses met the recommended quality control acceptance criteria for percent recovery for all applicable analytes except antimony, beryllium, cadmium, selenium, silver, strontium, thallium and tin.

MS/MSD RPD Statement

The relative percent differences (RPD) between each element in the MS and MSD was within the established acceptance criteria.

Serial Dilution % Difference Statement

The serial dilution is used to assess interference caused by matrix suppression or enhancement. Raw element concentrations that are at least 50X the instrument detection limit (IDL) for ICP analyses are applicable for serial dilution assessment. All applicable analytes met the established criteria for serial dilution evaluation, percent difference values of <10%, except aluminum, arsenic, barium, beryllium, boron, calcium, chromium, cobalt, copper, lead, magnesium, manganese, molybdenum, nickel, potassium, selenium, strontium, titanium, uranium, vanadium and zinc, possibly indicating matrix effects.

Technical Information:

Holding Time Specifications

All samples in this SDG met the specified holding time requirements.

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. All ICP samples were diluted a minimum of 2X. The following additional dilutions were required during the ICP analysis:

Sample ID	Dilution	Elements
32957001 (689-1-T)	10	potassium, sodium, iron
32957001 (689-1-T)	20	manganese
32957002 (689-1-B)	10	potassium, sodium
32957002 (689-1-B)	20	manganese
32957003 (689-2-T)	10	potassium, sodium
32957003 (689-2-T)	20	manganese
32957004 (689-2-B)	10	potassium, sodium, iron
32957004 (689-2-B)	20	manganese
32957005 (696-1-T)	10	potassium, sodium
32957005 (696-1-T)	20	manganese
32957006 (696-1-B)	10	potassium, sodium
32957006 (696-1-B)	20	manganese
32957007 (696-2-T)	10	potassium, sodium
32957007 (696-2-T)	20	manganese
32957008 (696-2-B)	10	potassium, sodium
32957008 (696-2-B)	20	manganese
32957009 (696-GRAB)	10	potassium, sodium, iron
32957009 (696-GRAB)	20	manganese

No dilutions were required for the CVAA analyses.

Miscellaneous Information:

NCR Documentation

Nonconformance reports (NCR) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. Nonconformance report GEL-AS-MA-1964 was issued to document LCS and ICS reporting issues.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis and to list any report documents generated as a result of sample analysis or review. No additional comments were required for this SDG.

Review/Validation:

GEL requires all analytical data to be verified by a qualified data validator.

The following data validator verified the data presented in this SDG:

Reviewer: ____________________

Date: 11/21/00

General Engineering Laboratories
Form GEL-XXX
(Rev. 02/00)

UNCONTROLLED DOCUMENT

1. NCR Report No.: GEL-AS-MA-1964
2. Page 1 of 1
3. Revision No.: 0

COMPANY-WIDE NONCONFORMANCE REPORT

COMPLETE EVERY ITEM

(See Instructions on Reverse Side)

4. Mo. Day Yr. 11 20 00

5. Division: ☐ Industrial ☒ Federal ☐ Radiochemistry ☐ Bioassay ☐ Other

6. Type: Material ☐ Process ☒ Product ☐

7. Instrument Type: TRACE

8. Quality Criteria: ☒ SOP ☐ QAP or QAPJP ☐ Client Contract ☐ Purchase Document ☐ Drawing ☐ Specifications ☐ Others

9. Supplier/Client Name & Code: WSRC

10. Test/Method #: 6010

Matrix: SoiL

11. Numerical Reference Identification: (Batch Number, Sample Number, ID number) 50462

12. Specifications and Requirements Nonconformance Description:

Item No.	
①	LCS fails for Sb + Ti. The Recoveries are out side the laboratory spc limits, but withine the manufactures Recovery criteria. The laboratory is Creating new spc limits to reflect the ~~manufactures~~ TW 11/20/00 actual recoveries the laboratory is getting for these elements.
②	Se fails high in the ICS-A, slightly All Se results reported may be bias high.

13. Originator's Printed Name & Signature: Tammy Woodie Date: 11/20/00

14. NRG Disposition:

Item No.	
(1+2)	Report data as is

15. NRG's Printed Name & Signature: Tammy Woodie Date: 11/20/00

List NRG Participants: 11/20/00

Management Review ☑ or Management Approval ☐

Please review within 24 hours of receipt.

NCR Review & Disposition Review or Approval:

16. Quality Review: Date

17. Originator's Director/Group Leader: Date

Corrective Action Request and Approval:

18. CA Requested: Print Name and Sign Date

19. Corrective Action Approval & Number Date

Radiochemistry Case Narrative
Westinghouse Savannah Rvr Co (WSRC)
SDG 00542

Method/Analysis Information

Batch Number:	52273
Procedure:	Determination of Gamma Isotopes in Water and Soil
Analytical Method:	DOE EML HASL 300

Sample ID	Client ID
32957001	689-1-T
32957002	689-1-B
32957003	689-2-T
32957004	689-2-B
32957005	696-1-T
32957006	696-1-B
32957007	696-2-T
32957008	696-2-B
32957009	696-GRAB
1000126505	MB for HBN 52273
1000126506	00-CIF-1345(33060001DUP)
1000126507	LCS for HBN 52273

SOP Reference

Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, Inc. as Standard Operating Procedures (SOP). The data discussed in this narrative has been prepared and analyzed in accordance with GL-EPI-A-013.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume(s) in this batch.

Designated QC

The following sample(s) was used for QC: *33060001.*

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation

NCR GEL-AS-RC-2645: Radioactive and non-radioactive samples were counted in the same batch. Samples were prepared in separate batches.

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments

The following data was rejected due to short half-life:

Sample 33060001; Pr-144.
Sample 1000126505; Pr-144.

Data was rejected using an R4 qualifier due to low abundance, interference, and no valid peak: *1000126506,32957001, 32957002, 32957003, 32957004, 32957005, 32957006, 32957007, 32957008, and 32957009.*

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: M. Moore **Date:** 22NOV2000

General Engineering Laboratories
Form GEL-XXX
(Rev. 02/00)

UNCONTROLLED DOCUMENT

1. NCR Report No.: GEL-AS-RC-2645
2. Page 1 of 1
3. Revision No.: 1

COMPANY-WIDE NONCONFORMANCE REPORT

COMPLETE EVERY ITEM

(See Instructions on Reverse Side)

4. Mo. Day Yr.: 11 | 21 | 00

5. Division: ☐ Industrial ☐ Federal ☑ Radiochemistry ☐ Bioassay ☐ Other

6. Type: Material ☐ Process ☑ Product ☐

7. Instrument Type: GAMMA SPECTROSCOPY

8. Quality Criteria: ☑ SOP ☐ QAP or QAPJP ☐ Client Contract ☐ Purchase Document ☐ Drawing ☐ Specifications ☐ Others

9. Supplier/Client Name & Code: BEVA 0199, WSRC 396, 497, WATP 2000

10. Test/Method #: EPI A-013

Matrix: SOIL

11. Numerical Reference Identification: (Batch Number, Sample Number, ID number) 52273

12. Specifications and Requirements Nonconformance Description:

Item No.	
1	RADIOACTIVE AND NON-RADIOACTIVE SAMPLES WERE ~~RUN~~ Counted 11/21/00 IN THE SAME BATCH. SAMPLES WERE PREPARED IN SEPERATE BATCHES.

13. Originator's Printed Name & Signature: Scott R. Baskett Date: 11/21/00

14. NRG Disposition:

Item No.	
1	SAMPLES COUNTED AND DATA REPORTED.

15. NRG's Printed Name & Signature: Scott R. Baskett Date: 11/21/00

List NRG Participants:

Management Review ☐ or Management Approval ☐

Please review within 24 hours of receipt.

NCR Review & Disposition Review or Approval:

16. Quality Review: Date

17. Originator's Director/Group Leader: Date

Corrective Action Request and Approval:

18. CA Requested: Print Name and Sign Date

19. Corrective Action Approval & Number Date

General Chemistry Narrative
Westinghouse Savannah River Co (WSRC)
SDG 00542

Method/Analysis Information

Procedure:	**Ion Chromatography**
Analytical Method:	EPA 300.0
Prep Method:	EPA 300.0 PREP
Analytical Batch Number:	50370
Prep Batch Number:	50188

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
32957001	689-1-T
32957002	689-1-B
32957003	689-2-T
32957004	689-2-B
32957005	696-1-T
32957006	696-1-B
32957007	696-2-T
32957008	696-2-B
32957009	696-GRAB
1000120398	MB for HBN 50370
1000120399	LCS for HBN 50370
1000120400	689-1-T(32957001DUP)
1000120401	689-1-T(32957001MS)

SOP Reference

Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, Inc. as Standard Operating Procedures (SOP). The data discussed in this narrative has been prepared and analyzed in accordance with GL-GC-E-086.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, Inc. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information:

The instrument used in this analysis was the following: Dionex DX300 Ion Chromatograph instrument equipped with a Dionex AS9-HC general purpose anion column

Initial Calibration

The instrument was properly calibrated.

Calibration Verification Information

All calibration verification standards were within the required limits.

Quality Control (QC) Information:

Blank Acceptance

The method and calibration check blanks associated with this data were within the required acceptance limits.

Laboratory Control Sample Recovery

The recovery for the laboratory control sample was within the required acceptance limits.

Quality Control

The following sample was designated for Quality Control for this sample group:
32957001

Sample Spike Recovery

The spike recovery for ortho-phosphate was outside of the required acceptance limits due to matrix interference. The spike recovery for nitrite was within the required acceptance limits. The sample concentration for nitrate was more than 4 times the spike nominal concentration, therefore the spike recovery was not applicable.

Sample Duplicate Acceptance

The Relative Percent Difference between the sample(s) and duplicate(s) for this SDG were within the required acceptance limits.

Technical Information:

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

The following samples from this sample group were received by the lab outside of the method specified holding time:

32957001
32957002
32957003
32957004
32957005
32957006
32957007
32957008
32957009

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The following samples in this sample group were diluted due to matrix interference and/or high concentration for this analysis. See the Certificate(s) of Analysis for the individual dilution factors for the following sample(s):

1000120400
1000120401
32957001
32957002
32957003
32957004
32957005
32957006
32957007
32957008
32957009

Miscellaneous Information:

Nonconformance Reports

No Nonconformance Reports (NCR) were required for any of the samples in this sample group for this analysis.

Method/Analysis Information

Procedure:	**Ion Chromatography**
Analytical Method:	EPA 300.0
Prep Method:	EPA 300.0 PREP
Analytical Batch Number:	52615
Prep Batch Number:	52578

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
32957001	689-1-T
32957002	689-1-B
32957003	689-2-T
32957004	689-2-B
32957005	696-1-T
32957006	696-1-B
32957007	696-2-T
32957008	696-2-B
32957009	696-GRAB
1000127227	MB for HBN 52615
1000127228	LCS for HBN 52615
1000127229	689-1-T(32957001DUP)
1000127230	689-1-T(32957001MS)

SOP Reference

Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, Inc. as Standard Operating Procedures (SOP). The data discussed in this narrative has been prepared and analyzed in accordance with GL-GC-E-086.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, Inc. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information:

The instrument used in this analysis was the following: Dionex DX300 Ion Chromatograph instrument equipped with a Dionex AS9-HC general purpose anion column

Initial Calibration

The instrument was properly calibrated.

Calibration Verification Information

All calibration verification standards were within the required limits.

Quality Control (QC) Information:

Blank Acceptance

The method and calibration check blanks associated with this data were within the required acceptance limits.

Laboratory Control Sample Recovery

The recovery for the laboratory control sample was within the required acceptance limits.

Quality Control

The following sample was designated for Quality Control for this sample group:
32957001

Sample Spike Recovery

The spike recoveries for bromide and fluoride were outside of the required acceptance limits due to matrix interference. The spike recovery for chloride was within the required acceptance limits. The sample concentration for sulfate was more than 4 times the spike nominal concentration, therefore the spike recovery was not applicable.

Sample Duplicate Acceptance

The Relative Percent Difference between the sample(s) and duplicate(s) for this SDG were within the required acceptance limits.

Technical Information:

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

The samples from this sample group were accidentally analyzed outside of the method specified holding time. See the Nonconformance Report section of this narrative for more information.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The following samples in this sample group were diluted due to matrix interference and/or high concentration for this analysis. See the Certificate(s) of Analysis for the individual dilution factors for the following sample(s):
1000127229
1000127230
32957001
32957002
32957003
32957004
32957005
32957006
32957007
32957008
32957009

Miscellaneous Information:

Nonconformance Reports

The following Nonconformance Report (NCR) was submitted for samples in this sample group for this analysis.
NCR# GEL-AS-GC-2373

A2-20

General Engineering Laboratories
Form GEL-XXX
(Rev. 09/98)

1. NCR Report No.: GEL-HS-GC-2373
2. Page 1 of 1
3. Revision No.: 0

COMPANY-WIDE NONCONFORMANCE REPORT
COMPLETE EVERY ITEM
(See Instructions on Reverse Side)

4. Mo. Day Yr. 11/16/00
5. Division: ☐ Industrial ☑ Federal ☐ Radiochemistry ☐ Bioassay ☐ Other
6. Type: Material ☑ Process ☐ Product ☐
7. Instrument Type: Ion Chromatography
8. Quality Criteria: ☑ SOP ☐ QAP or QAPJP ☐ Client Contract ☐ Purchase Document ☐ Drawing ☐ Specifications ☐ Others
9. Supplier/Client Name & Code: WSRC00497
10. Test/Method: 300
11. Numerical Reference Identification: (Batch Number, Sample Number, ID number)
Batch 52615; Samples 32957001,2,3,4,5,6,7,8,9

12. Specifications and Requirements Nonconformance Description:

Item No.	
1	Original sample run was in holding, but the high values for the samples required rerun dilution which were out of holding.

13. Originator's Printed Name & Signature: Robert W. Sosa Date: 11/16/00

14. NRG Disposition:

Item No.	
1	Samples were rerun as soon as possible

15. NRG's Printed Name & Signature: Robert W. Sosa Date: 11/16/00
List NRG Participants:
Joseph M. Boyd
Management Review ☑ or Management Approval ☐

Please review within 24 hours of receipt.

NCR Review & Disposition Review or Approval:
16. Quality Review: Date
17. Originator's Director/Group Leader: Date

Corrective Action Request and Approval:
18. CA Requested: Print Name and Sign Date
19. Corrective Action Approval & Number Date

Method/Analysis Information

Procedure:	**Oxalate by Ion Chromatography**
Analytical Method:	EPA 300.0
Prep Method:	EPA 300.0 PREP
Analytical Batch Number:	52629
Prep Batch Number:	52579

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
32957001	689-1-T
32957002	689-1-B
32957003	689-2-T
32957004	689-2-B
32957005	696-1-T
32957006	696-1-B
32957007	696-2-T
32957008	696-2-B
32957009	696-GRAB
1000127231	MB for HBN 52629
1000127232	LCS for HBN 52629
1000127233	689-1-T(32957001DUP)
1000127234	689-1-T(32957001MS)

SOP Reference

Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, Inc. as Standard Operating Procedures (SOP). The data discussed in this narrative has been prepared and analyzed in accordance with GL-GC-E-086.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, Inc. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information:

The instrument used in this analysis was the following: Dionex DX300 Ion Chromatograph instrument equipped with a Dionex AS9-HC general purpose anion column

Initial Calibration

The instrument was properly calibrated.

Calibration Verification Information

All calibration verification standards were within the required limits.

Quality Control (QC) Information:

Blank Acceptance

The method and calibration check blanks associated with this data were within the required acceptance limits.

Laboratory Control Sample Recovery

The recovery for the laboratory control sample was within the required acceptance limits.

Quality Control

The following sample was designated for Quality Control for this sample group:
32957001

Sample Spike Recovery

The spike recovery was outside of the required acceptance limits due to matrix interference.

Sample Duplicate Acceptance

The Relative Percent Difference between the sample and duplicate for this SDG were within the required acceptance limits.

Technical Information:

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

All samples from this sample group were analyzed within the required holding time for this method.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

No samples in this sample group required dilutions.

Miscellaneous Information:

Nonconformance Reports

No Nonconformance Reports (NCR) were required for any of the samples in this sample group for this analysis.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:____________________ **Date:** 11/17/00

Case Narrative for
WSRC
SDG# 00542T
Mercury Analysis by CVAA
Metals Analysis by ICP

Sample Analysis:

The following samples were initially leached using EPA method 1311 and additionally prepared and analyzed according to the methods referenced in the "Method/Analysis Information" section of this narrative:

Sample ID	Client ID
33055001	689-1-T
33055002	689-1-B
33055003	689-2-T
33055004	689-2-B
33055005	696-1-T
33055006	696-1-B
33055007	696-2-T
33055008	696-2-B
33055009	696-GRAB
1000121676	TCLP Blank (TB)
1000122008	TCLP Blank (TB)
1000123123	Method Blank (MB) **ICP**-51690/51161
1000123124	Laboratory Control Sample (LCS)
1000123160	Laboratory Control Sample Duplicate (LCSD)
1000123127	696-GRABL (33055009) Serial Dilution (SDILT)
1000123125	696-GRABS (33055009) Matrix Spike (MS)
1000123126	696-GRABSD (33055009) Matrix Spike Duplicate (MSD)
1000123141	Method Blank (MB) **CVAA**-51662/51164
1000123142	Laboratory Control Sample (LCS)
1000123161	Laboratory Control Sample Duplicate (LCSD)
1000123139	696-GRABS (33055009) Matrix Spike (MS)
1000123140	696-GRABSD (33055009) Matrix Spike Duplicate (MSD)

Method/Analysis Information:

Analytical Batch #:	51690, 51662
Prep Batch #:	51161, 51164
Procedure:	ICP 6010 IN LIQUID; EPA 7470 Mercury Liquid Federal
Analytical Method:	SW846 6010B; SW846 7470A
Prep Method:	SW846 1311| SW846 3010A; SW846 7470A

System Configuration

The ICP analysis was performed on a Thermo Jarrell Ash 61E Trace axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Meinhardt nebulizer, cyclonic spray chamber, and yttrium internal standard. Operating conditions for the Trace ICP are set at a power level of 950 watts. The instrument has a peristaltic pump flow rate of 140 RPM (2.0 mL/min sample uptake rate), argon gas flows of 15 L/min and 0.5 L/min for the torch and auxiliary gases, and a pressure setting of 26 PSI for the nebulizer.

Mercury analysis was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-400) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 254 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 5 L/min.

Sample Preparation

All samples were prepared in accordance with the referenced SW-846 procedure.

Calibration Information:

Initial Calibration

Instrument calibrations are conducted using method and instrument manufacturer's specifications. All initial calibration requirements have been met for this analysis.

CRDL Requirements

All CRDL standards met the referenced advisory control limits.

Continuing Calibration Verification (CCV) Standards

All continuing calibration verification (CCV) standards bracketing analyses associated with this SDG met the established acceptance criteria.

Continuing Calibration Blanks (CCB) Requirements

All continuing calibration blanks (CCB) bracketing analyses associated with this SDG met the established acceptance criteria.

ICSA/ICSAB Requirements

All interference check standard (ICSA and ICSAB) elements associated with this SDG met the established acceptance criteria.

Quality Control (QC) Information:

Method Blank Acceptance

The TCLP and preparation blanks analyzed with this SDG did not contain analytes of interest at concentrations greater than the reporting limits (RL).

LCS/LCSD Recovery Statement
The laboratory control samples (LCS) met the established acceptance criteria for percent recovery (%R) for all elements of interest.

MS/MSD Recovery Statement
Sample 696-GRAB (33055009) was designated as the quality control sample for the ICP and CVAA batches. Each batch included a matrix spike (MS) and a matrix spike duplicate (MSD).

The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS and MSD met the recommended quality control acceptance criteria for percent recovery (75%-125%) for all applicable analytes except barium and lead.

MS/MSD RPD Statement
All elements in the MS and MSD analyses met the established acceptance criteria for relative percent difference (RPD).

Serial Dilution % Difference Statement
The serial dilution is used to assess interference caused by matrix suppression or enhancement. Raw element concentrations that are at least 50X the instrument detection limit (IDL) for ICP analyses are applicable for serial dilution assessment. All applicable analytes met the established criteria for serial dilution evaluation, percent difference values <10%.

Technical Information:

Holding Time Specifications
All samples in this SDG met the specified holding time requirements.

Sample Dilutions
Dilutions are performed to minimize matrix interference resulting from elevated mineral element concentrations and/or to bring over range target analyte concentrations into the linear calibration range of the instruments.

All ICP samples were diluted a minimum of 10X at the instrument to minimize potential interferences arising from the high sodium content in the leaching solution. The following additional dilutions were performed:

Sample ID	Dilution	Elements
33055006 (696-1-B)	20	zinc
33055007 (696-2-T)	20	zinc
33055008 (696-2-B)	20	zinc

All CVAA samples were diluted 10X during the mercury preparation step. No further dilutions were required for the CVAA analyses.

Miscellaneous Information:

NCR Documentation

Nonconformance reports (NCR) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. No NCR's were issued for this SDG.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis and to list any report documents generated as a result of sample analysis or review. Additional comments were not required for this SDG.

Review/Validation:

GEL requires all analytical data to be verified by a qualified data validator.

The following data validator verified the data presented in this SDG:

Reviewer: ________________

Date: 11/21/00

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Westinghouse Savannah Rivr Co.
Address : Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

Page 1 of 4

Client Sample ID: 689-1-T
Sample ID: 32957001
Matrix: Misc. Solid
Collect Date: 12-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Soil Federal											
Oxalate	U	0.00	1.13	6.00	mg/kg	1	RWS	11/08/00	1904	52629	1
EPA300.0 Sulfate in Solids											
Nitrite		11.3	1.97	4.93	mg/kg	10	HSC	10/30/00	1745	50370	3
Ortho-phosphate		37.1	3.94	9.85	mg/kg	10					
Nitrate		38300	197	493	mg/kg	1000	HSC	10/30/00	2150	50370	4
Sulfate		74000	790	2000	mg/kg	1000	RWS	11/09/00	1650	52615	6
Bromide	U	0.00	4.00	12.5	mg/kg	25	RWS	11/10/00	0938	52615	7
Chloride		308	6.50	25.0	mg/kg	25					
Fluoride		189	4.25	12.5	mg/kg	25					
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		58.0	3.98	8.75	ug/kg	1	AW2	10/25/00	1148	50427	8
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		13800000	762	4950	ug/kg	2	RMJ	11/17/00	1138	50462	9
Antimony, total recoverable		1890	161	990	ug/kg	2					
Arsenic, total recoverable		1410000	258	495	ug/kg	2					
Barium. total recoverable		143000	92.0	495	ug/kg	2					
Beryllium, total recoverable		18600	61.6	495	ug/kg	2					
Boron, total recoverable		277000	812	4950	ug/kg	2					
Cadmium, total recoverable		6470	75.5	495	ug/kg	2					
Calcium, total recoverable		18100000	2380	9900	ug/kg	2					
Chromium, total recoverable		340000	128	495	ug/kg	2					
Cobalt, total recoverable		2020000	110	495	ug/kg	2					
Copper, total recoverable		1250000	198	495	ug/kg	2					
Lead, total recoverable		678000	196	495	ug/kg	2					
Magnesium, total recoverable		34500000	364	1980	ug/kg	2					
Molybdenum		420000	168	990	ug/kg	2					
Nickel, total recoverable		2920000	143	495	ug/kg	2					
Selenium, total recoverable		51400	288	495	ug/kg	2					
Silver, total recoverable		1180	199	495	ug/kg	2					
Strontium		74900	51.6	495	ug/kg	2					
Thallium, total recoverable		2840	396	990	ug/kg	2					
Tin, total recoverable		8860	286	990	ug/kg	2					

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Westinghouse Savannah Rivr Co.
Address : Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

Page 2 of 4

Client Sample ID: 689-1-T
Sample ID: 32957001

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate		Time	Batch	Method
Metals Analysis-ICP Federal												
6010 ICP SCAN Metals Soil												
Titanium		141000		66.5	495	ug/kg	2					
Uranium		599000		1740	4950	ug/kg	2					
Vanadium, total recoverable		300000		147	495	ug/kg	2					
Zinc, total recoverable		412000		272	495	ug/kg	2					
Potassium, total recoverable		24900000		22700	49500	ug/kg	10	RMJ	11/17/00	1311	50462	10
Sodium, total recoverable		66500000		3020	49500	ug/kg	10					
Manganese, total recoverable		7920000		1750	9900	ug/kg	20	RMJ	11/17/00	1449	50462	11
Iron, total recoverable		77300000		3960	24800	ug/kg	10	RMJ	11/17/00	1311	50462	12
Rad Gamma Spec												
Gammaspec, Gamma, solid												
Actinium-227		435	+/-6.61	7.34	0.500	pCi/g		SRB	11/13/00	0843	52273	13
Actinium-228		102	+/-2.85	2.55	0.500	pCi/g						
Antimony-124	R4	1.33	+/-0.759	0.837	0.050	pCi/g						
Antimony-125	R4	26.4	+/-1.81	2.26	0.100	pCi/g						
Barium-133	R4	0.871	+/-0.488	0.808	0.050	pCi/g						
Californium-249	R4	5.07	+/-0.558	0.782	0.050	pCi/g						
Californium-251	U	-0.145	+/-1.65	2.63	0.200	pCi/g						
Cerium-141	R4	138	+/-2.13	2.36	0.050	pCi/g						
Cerium-144	U	2.20	+/-2.54	4.29	0.500	pCi/g						
Cesium-134	R4	0.947	+/-0.539	0.569	0.050	pCi/g						
Cesium-135	R4	605	+/-4.89	2.83	0.200	pCi/g						
Cesium-137	R4	0.676	+/-0.468	0.658	0.050	pCi/g						
Cobalt-57	R4	6.67	+/-0.492	0.500	0.050	pCi/g						
Cobalt-58	U	0.440	+/-0.852	0.836	0.050	pCi/g						
Cobalt-60	U	-0.685	+/-0.535	0.721	0.050	pCi/g						
Europium-152	R4	7.20	+/-1.34	1.90	0.100	pCi/g						
Europium-154	U	1.77	+/-1.55	2.10	0.500	pCi/g						
Lead-212		107	+/-1.07	1.07	0.100	pCi/g						
Manganese-54	R4	1.55	+/-0.528	0.697	0.100	pCi/g						
Neptunium-239	R4	6.75	+/-2.41	3.54	5.00	pCi/g						
Niobium-94	R4	6.70	+/-0.631	0.713	1.00	pCi/g						
Potassium-40		35.0	+/-8.09	7.47	0.500	pCi/g						
Promethium-144	U	0.607	+/-0.507	0.611	0.050	pCi/g						
Promethium-146	R4	4.45	+/-0.799	0.885	0.050	pCi/g						
Radium-226		995	+/-3.20	1.17	1.00	pCi/g						
Radium-228		102	+/-2.85	2.55	0.500	pCi/g						
Ruthenium-103	U	-0.412	+/-0.598	0.962	0.050	pCi/g						
Ruthenium-106	U	3.48	+/-3.53	5.67	0.500	pCi/g						
Sodium-22	U	0.639	+/-0.560	0.740	0.050	pCi/g						
Tin-113	U	-0.391	+/-0.678	0.976	0.050	pCi/g						
Tin-126	R4	104	+/-1.15	1.42	0.100	pCi/g						

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Company :	Westinghouse Savannah Rivr Co.		
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Contact:	Ms. Janet Crawford		
Project:	HazWaste Contract	Page	3 of 4

Client Sample ID:	689-1-T	Project:	WSRC00497
Sample ID:	32957001	Client ID:	WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Yttrium-88	R4	4.72	+/-0.847	0.751	0.050	pCi/g					
Zinc-65	R4	22.1	+/-1.26	2.08	0.100	pCi/g					
Zirconium-95	R4	2.37	+/-1.11	1.56	0.100	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	CRS	11/03/00	1812	50652
EPA 300.0 PREP	EPA 300.0 Oxalate soil Federal	RWS	11/08/00	1314	52579
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	HSC	10/24/00	1800	50188
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	11/08/00	1314	52578
SW846 3050B	846 3050BS PREP	KLD1	10/24/00	1700	50200
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	10/24/00	1900	50190

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	EPA 300.0
5	EPA 300.0
6	EPA 300.0
7	EPA 300.0
8	SW846 7471A
9	SW846 6010B
10	SW846 6010B
11	SW846 6010B
12	SW846 6010B
13	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result

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Project: HazWaste Contract

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Client Sample ID: 689-1-T
Sample ID: 32957001

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Lee M Heath
Reviewed by

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Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 689-1-B
Sample ID: 32957002
Matrix: Misc. Solid
Collect Date: 12-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Soil Federal											
Oxalate	U	0.00	1.13	6.00	mg/kg	1	RWS	11/08/00	2005	52629	1
EPA300.0 Sulfate in Solids											
Nitrite		13.7	1.97	4.93	mg/kg	10	HSC	10/30/00	1828	50370	3
Ortho-phosphate		104	3.94	9.85	mg/kg	10					
Nitrate		38600	197	493	mg/kg	1000	HSC	10/30/00	2233	50370	4
Sulfate		71700	790	2000	mg/kg	1000	RWS	11/09/00	1733	52615	6
Bromide	U	0.00	4.00	12.5	mg/kg	25	RWS	11/10/00	1021	52615	7
Chloride		172	6.50	25.0	mg/kg	25					
Fluoride		94.0	4.25	12.5	mg/kg	25					
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		51.8	4.28	9.40	ug/kg	1	AW2	10/25/00	1153	50427	8
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		13200000	755	4900	ug/kg	2	RMJ	11/17/00	1200	50462	9
Antimony, total recoverable		1570	160	980	ug/kg	2					
Arsenic, total recoverable		1360000	256	490	ug/kg	2					
Barium. total recoverable		135000	91.1	490	ug/kg	2					
Beryllium, total recoverable		17600	61.0	490	ug/kg	2					
Boron, total recoverable		263000	804	4900	ug/kg	2					
Cadmium, total recoverable		6030	74.8	490	ug/kg	2					
Calcium, total recoverable		17500000	2350	9800	ug/kg	2					
Chromium, total recoverable		323000	126	490	ug/kg	2					
Cobalt, total recoverable		1840000	109	490	ug/kg	2					
Copper, total recoverable		1160000	196	490	ug/kg	2					
Iron, total recoverable		48200000	784	4900	ug/kg	2					
Lead, total recoverable		647000	194	490	ug/kg	2					
Magnesium, total recoverable		32700000	361	1960	ug/kg	2					
Molybdenum		388000	167	980	ug/kg	2					
Nickel, total recoverable		2680000	141	490	ug/kg	2					
Selenium, total recoverable		47000	285	490	ug/kg	2					
Silver, total recoverable		1130	197	490	ug/kg	2					
Strontium		70400	51.1	490	ug/kg	2					
Thallium, total recoverable		3100	392	980	ug/kg	2					
Tin, total recoverable		8410	283	980	ug/kg	2					

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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 689-1-B
Sample ID: 32957002

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Titanium		134000		65.9	490	ug/kg	2				
Uranium		560000		1730	4900	ug/kg	2				
Vanadium, total recoverable		288000		145	490	ug/kg	2				
Zinc, total recoverable		393000		270	490	ug/kg	2				
Potassium, total recoverable		21500000		22500	49000	ug/kg	10	RMJ 11/17/00	1333	50462	10
Sodium, total recoverable		53500000		3000	49000	ug/kg	10				
Manganese, total recoverable		7510000		1740	9800	ug/kg	20	RMJ 11/17/00	1511	50462	11
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Actinium-227		425	+/-5.79	6.13	0.500	pCi/g		SRB 11/13/00	0843	52273	12
Actinium-228		95.4	+/-2.21	1.67	0.500	pCi/g					
Antimony-124	U	-0.0589	+/-0.563	0.558	0.050	pCi/g					
Antimony-125	R4	22.6	+/-1.26	1.60	0.100	pCi/g					
Barium-133	R4	0.750	+/-0.405	0.618	0.050	pCi/g					
Californium-249	R4	4.59	+/-0.477	0.561	0.050	pCi/g					
Californium-251	U	-1.15	+/-1.44	2.24	0.200	pCi/g					
Cerium-141	R4	125	+/-1.91	1.97	0.050	pCi/g					
Cerium-144	U	3.41	+/-2.47	3.78	0.500	pCi/g					
Cesium-134	R4	5.78	+/-0.311	0.487	0.050	pCi/g					
Cesium-135	R4	585	+/-4.08	2.34	0.200	pCi/g					
Cesium-137	R4	1.22	+/-0.319	0.454	0.050	pCi/g					
Cobalt-57	R4	5.63	+/-0.546	0.464	0.050	pCi/g					
Cobalt-58	U	-0.0645	+/-0.571	0.549	0.050	pCi/g					
Cobalt-60	U	-0.373	+/-0.366	0.497	0.050	pCi/g					
Europium-152	R4	5.15	+/-1.02	1.49	0.100	pCi/g					
Europium-154	R4	2.97	+/-1.23	1.47	0.500	pCi/g					
Lead-212		104	+/-0.987	0.895	0.100	pCi/g					
Manganese-54	R4	1.71	+/-0.374	0.462	0.100	pCi/g					
Neptunium-239	R4	5.23	+/-2.15	3.32	5.00	pCi/g					
Niobium-94	R4	5.87	+/-0.479	0.481	1.00	pCi/g					
Potassium-40		35.0	+/-5.49	5.08	0.500	pCi/g					
Promethium-144	R4	0.627	+/-0.382	0.405	0.050	pCi/g					
Promethium-146	R4	4.13	+/-0.632	0.628	0.050	pCi/g					
Radium-226		877	+/-2.48	0.821	1.00	pCi/g					
Radium-228		95.4	+/-2.21	1.67	0.500	pCi/g					
Ruthenium-103	U	-0.631	+/-0.420	0.667	0.050	pCi/g					
Ruthenium-106	U	1.27	+/-2.67	3.92	0.500	pCi/g					
Sodium-22	J	1.07	+/-0.445	0.516	0.050	pCi/g					
Tin-113	U	-0.49	+/-0.496	0.703	0.050	pCi/g					
Tin-126	R4	65.5	+/-1.42	1.87	0.100	pCi/g					
Yttrium-88	R4	4.25	+/-0.493	0.429	0.050	pCi/g					

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Company : Westinghouse Savannah Rivr Co.
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Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

Client Sample ID: 689-1-B
Sample ID: 32957002

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Zinc-65	R4	31.8	+/-0.906	1.61	0.100	pCi/g					
Zirconium-95	R4	1.82	+/-0.608	1.01	0.100	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	CRS	11/03/00	1812	50652
EPA 300.0 PREP	EPA 300.0 Oxalate soil Federal	RWS	11/08/00	1314	52579
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	HSC	10/24/00	1800	50188
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	11/08/00	1314	52578
SW846 3050B	846 3050BS PREP	KLD1	10/24/00	1700	50200
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	10/24/00	1900	50190

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	EPA 300.0
5	EPA 300.0
6	EPA 300.0
7	EPA 300.0
8	SW846 7471A
9	SW846 6010B
10	SW846 6010B
11	SW846 6010B
12	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Address :	Building 735-16A, Rm 5 P.O. Box 616 Aiken, SC 29802	Report Date:	November 22, 2000
Contact:	Ms. Janet Crawford		Page 4 of 4
Project:	HazWaste Contract		

Client Sample ID:	689-1-B	Project:	WSRC00497
Sample ID:	32957002	Client ID:	WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Lee M Heath

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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 689-2-T
Sample ID: 32957003
Matrix: Misc. Solid
Collect Date: 12-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Soil Federal											
Oxalate	U	0.00	1.13	6.00	mg/kg	1	RWS	11/08/00	2025	52629	1
EPA300.0 Sulfate in Solids											
Nitrite		15.0	1.98	4.95	mg/kg	10	HSC	10/30/00	1843	50370	3
Ortho-phosphate		98.1	3.96	9.90	mg/kg	10					
Nitrate		40300	198	495	mg/kg	1000	HSC	10/30/00	2247	50370	4
Sulfate		71000	790	2000	mg/kg	1000	RWS	11/09/00	1748	52615	6
Bromide	U	0.00	4.00	12.5	mg/kg	25	RWS	11/10/00	1036	52615	7
Chloride		304	6.50	25.0	mg/kg	25					
Fluoride		161	4.25	12.5	mg/kg	25					
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		50.5	4.11	9.04	ug/kg	1	AW2	10/25/00	1155	50427	8
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		13100000	740	4810	ug/kg	2	RMJ	11/17/00	1217	50462	9
Antimony, total recoverable		1450	157	962	ug/kg	2					
Arsenic, total recoverable		1320000	251	481	ug/kg	2					
Barium. total recoverable		135000	89.3	481	ug/kg	2					
Beryllium, total recoverable		17600	59.8	481	ug/kg	2					
Boron, total recoverable		257000	788	4810	ug/kg	2					
Cadmium, total recoverable		6120	73.4	481	ug/kg	2					
Calcium, total recoverable		17100000	2310	9620	ug/kg	2					
Chromium, total recoverable		325000	124	481	ug/kg	2					
Cobalt, total recoverable		1890000	107	481	ug/kg	2					
Copper, total recoverable		1160000	192	481	ug/kg	2					
Iron, total recoverable		48100000	769	4810	ug/kg	2					
Lead, total recoverable		633000	190	481	ug/kg	2					
Magnesium, total recoverable		32700000	354	1920	ug/kg	2					
Molybdenum		396000	163	962	ug/kg	2					
Nickel, total recoverable		2770000	138	481	ug/kg	2					
Selenium, total recoverable		47500	280	481	ug/kg	2					
Silver, total recoverable		1070	193	481	ug/kg	2					
Strontium		70300	50.1	481	ug/kg	2					
Thallium, total recoverable		2860	385	962	ug/kg	2					
Tin, total recoverable		8650	278	962	ug/kg	2					

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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 689-2-T
Sample ID: 32957003
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Titanium		134000		64.6	481	ug/kg	2				
Uranium		560000		1690	4810	ug/kg	2				
Vanadium, total recoverable		283000		142	481	ug/kg	2				
Zinc, total recoverable		386000		264	481	ug/kg	2				
Potassium, total recoverable		22000000		22100	48100	ug/kg	10	RMJ 11/17/00	1339	50462	10
Sodium, total recoverable		57500000		2940	48100	ug/kg	10				
Manganese, total recoverable		7710000		1700	9620	ug/kg	20	RMJ 11/17/00	1517	50462	11
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Actinium-227		445	+/-5.52	5.81	0.500	pCi/g		SRB 11/13/00	0844	52273	12
Actinium-228		96.1	+/-2.07	1.61	0.500	pCi/g					
Antimony-124	U	-1.41	+/-0.344	0.530	0.050	pCi/g					
Antimony-125	R4	23.5	+/-1.35	1.54	0.100	pCi/g					
Barium-133	R4	0.937	+/-0.369	0.555	0.050	pCi/g					
Californium-249	R4	3.97	+/-0.441	0.519	0.050	pCi/g					
Californium-251	U	-0.0134	+/-1.34	2.11	0.200	pCi/g					
Cerium-141	R4	131	+/-1.68	2.04	0.050	pCi/g					
Cerium-144	U	-2.04	+/-2.49	3.53	0.500	pCi/g					
Cesium-134	R4	0.777	+/-0.280	0.393	0.050	pCi/g					
Cesium-135	R4	563	+/-3.46	2.24	0.200	pCi/g					
Cesium-137	U	0.165	+/-0.294	0.404	0.050	pCi/g					
Cobalt-57	R4	3.34	+/-0.528	0.420	0.050	pCi/g					
Cobalt-58	U	-0.585	+/-0.370	0.518	0.050	pCi/g					
Cobalt-60	U	0.269	+/-0.529	0.477	0.050	pCi/g					
Europium-152	R4	7.26	+/-1.07	1.39	0.100	pCi/g					
Europium-154	R4	3.07	+/-0.980	1.38	0.500	pCi/g					
Lead-212		104	+/-0.886	0.852	0.100	pCi/g					
Manganese-54	R4	1.56	+/-0.355	0.548	0.100	pCi/g					
Neptunium-239	U	2.37	+/-2.24	3.01	5.00	pCi/g					
Niobium-94	R4	5.65	+/-0.408	0.448	1.00	pCi/g					
Potassium-40		38.9	+/-5.92	4.78	0.500	pCi/g					
Promethium-144	R4	0.417	+/-0.282	0.380	0.050	pCi/g					
Promethium-146	R4	4.21	+/-0.546	0.587	0.050	pCi/g					
Radium-226		872	+/-2.28	0.766	1.00	pCi/g					
Radium-228		96.1	+/-2.07	1.61	0.500	pCi/g					
Ruthenium-103	U	-0.204	+/-0.393	0.626	0.050	pCi/g					
Ruthenium-106	U	-2.28	+/-2.26	3.53	0.500	pCi/g					
Sodium-22	J	1.11	+/-0.354	0.465	0.050	pCi/g					
Tin-113	U	-0.147	+/-0.463	0.657	0.050	pCi/g					
Tin-126	R4	88.5	+/-1.04	1.59	0.100	pCi/g					
Yttrium-88	R4	3.59	+/-0.289	0.535	0.050	pCi/g					

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Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 689-2-T
Sample ID: 32957003
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Zinc-65	R4	4.89	+/-0.758	1.11	0.100	pCi/g					
Zirconium-95	R4	2.34	+/-0.702	0.971	0.100	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	CRS	11/03/00	1813	50652
EPA 300.0 PREP	EPA 300.0 Oxalate soil Federal	RWS	11/08/00	1314	52579
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	HSC	10/24/00	1800	50188
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	11/08/00	1314	52578
SW846 3050B	846 3050BS PREP	KLD1	10/24/00	1700	50200
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	10/24/00	1900	50190

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	EPA 300.0
5	EPA 300.0
6	EPA 300.0
7	EPA 300.0
8	SW846 7471A
9	SW846 6010B
10	SW846 6010B
11	SW846 6010B
12	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Project: HazWaste Contract

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Client Sample ID: 689-2-T
Sample ID: 32957003

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

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Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	689-2-B	Project:	WSRC00497
Sample ID:	32957004	Client ID:	WSRC006
Matrix:	Misc. Solid		
Collect Date:	12-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Soil Federal											
Oxalate	U	0.00	1.13	6.00	mg/kg	1	RWS	11/08/00	2046	52629	1
EPA300.0 Sulfate in Solids											
Nitrite		10.3	1.99	4.96	mg/kg	10	HSC	10/30/00	1857	50370	3
Ortho-phosphate	U	0.00	3.97	9.93	mg/kg	10					
Nitrate		38800	199	496	mg/kg	1000	HSC	10/30/00	2302	50370	4
Sulfate		71900	790	2000	mg/kg	1000	RWS	11/09/00	1802	52615	6
Bromide	U	0.00	4.00	12.5	mg/kg	25	RWS	11/10/00	1050	52615	7
Chloride		298	6.50	25.0	mg/kg	25					
Fluoride		163	4.25	12.5	mg/kg	25					
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		46.2	4.38	9.63	ug/kg	1	AW2	10/25/00	1157	50427	8
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		13000000	713	4630	ug/kg	2	RMJ	11/17/00	1222	50462	9
Antimony, total recoverable		1520	151	926	ug/kg	2					
Arsenic, total recoverable		1340000	242	463	ug/kg	2					
Barium. total recoverable		131000	86.0	463	ug/kg	2					
Beryllium, total recoverable		17300	57.6	463	ug/kg	2					
Boron, total recoverable		262000	759	4630	ug/kg	2					
Cadmium, total recoverable		5920	70.6	463	ug/kg	2					
Calcium, total recoverable		17300000	2220	9260	ug/kg	2					
Chromium, total recoverable		317000	119	463	ug/kg	2					
Cobalt, total recoverable		1810000	103	463	ug/kg	2					
Copper, total recoverable		1140000	185	463	ug/kg	2					
Lead, total recoverable		637000	183	463	ug/kg	2					
Magnesium, total recoverable		32100000	341	1850	ug/kg	2					
Molybdenum		387000	157	926	ug/kg	2					
Nickel, total recoverable		2610000	133	463	ug/kg	2					
Selenium, total recoverable		46000	269	463	ug/kg	2					
Silver, total recoverable		1100	186	463	ug/kg	2					
Strontium		69500	48.2	463	ug/kg	2					
Thallium, total recoverable		2780	370	926	ug/kg	2					
Tin, total recoverable		8100	268	926	ug/kg	2					
Titanium		133000	62.2	463	ug/kg	2					

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Project: HazWaste Contract

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Client Sample ID: 689-2-B
Sample ID: 32957004

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate		Time	Batch	Method
Metals Analysis-ICP Federal												
6010 ICP SCAN Metals Soil												
Uranium		542000		1630	4630	ug/kg	2					
Vanadium, total recoverable		286000		137	463	ug/kg	2					
Zinc, total recoverable		385000		255	463	ug/kg	2					
Potassium, total recoverable		22700000		21300	46300	ug/kg	10	RMJ	11/17/00	1355	50462	10
Sodium, total recoverable		55900000		2830	46300	ug/kg	10					
Manganese, total recoverable		7490000		1640	9260	ug/kg	20	RMJ	11/17/00	1533	50462	11
Iron, total recoverable		68300000		3700	23100	ug/kg	10	RMJ	11/17/00	1355	50462	12
Rad Gamma Spec												
Gammaspec, Gamma, solid												
Actinium-227		427	+/-6.84	7.52	0.500	pCi/g		SRB	11/13/00	0844	52273	13
Actinium-228		96.0	+/-2.78	2.34	0.500	pCi/g						
Antimony-124	U	-0.934	+/-0.462	0.752	0.050	pCi/g						
Antimony-125		24.5	+/-1.82	2.21	0.100	pCi/g						
Barium-133	R4	1.26	+/-0.621	0.775	0.050	pCi/g						
Californium-249	R4	7.24	+/-0.747	0.752	0.050	pCi/g						
Californium-251	U	-0.137	+/-1.65	2.65	0.200	pCi/g						
Cerium-141	R4	126	+/-1.99	2.40	0.050	pCi/g						
Cerium-144	U	-4.56	+/-2.72	4.38	0.500	pCi/g						
Cesium-134	R4	0.712	+/-0.371	0.550	0.050	pCi/g						
Cesium-135	R4	342	+/-3.15	2.94	0.200	pCi/g						
Cesium-137	U	0.355	+/-0.406	0.594	0.050	pCi/g						
Cobalt-57	R4	4.05	+/-0.726	0.524	0.050	pCi/g						
Cobalt-58	U	-0.19	+/-0.535	0.761	0.050	pCi/g						
Cobalt-60	U	-0.195	+/-0.431	0.679	0.050	pCi/g						
Europium-152	R4	5.24	+/-1.55	1.87	0.100	pCi/g						
Europium-154	U	1.57	+/-1.13	1.88	0.500	pCi/g						
Lead-212		102	+/-1.08	1.10	0.100	pCi/g						
Manganese-54	R4	1.09	+/-0.893	0.638	0.100	pCi/g						
Neptunium-239	U	3.46	+/-2.90	3.78	5.00	pCi/g						
Niobium-94	R4	6.29	+/-0.615	0.534	1.00	pCi/g						
Potassium-40		38.6	+/-7.64	6.83	0.500	pCi/g						
Promethium-144	U	0.329	+/-0.326	0.550	0.050	pCi/g						
Promethium-146	R4	5.32	+/-0.915	0.854	0.050	pCi/g						
Radium-226		929	+/-3.26	1.10	1.00	pCi/g						
Radium-228		96.0	+/-2.78	2.34	0.500	pCi/g						
Ruthenium-103	U	-0.00908	+/-0.593	0.917	0.050	pCi/g						
Ruthenium-106	U	0.490	+/-3.20	5.28	0.500	pCi/g						
Sodium-22	U	0.568	+/-0.408	0.667	0.050	pCi/g						
Tin-113	U	-0.955	+/-0.684	0.941	0.050	pCi/g						
Tin-126	R4	71.0	+/-1.59	2.04	0.100	pCi/g						
Yttrium-88	R4	1.41	+/-0.431	0.672	0.050	pCi/g						

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Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	689-2-B	Project:	WSRC00497
Sample ID:	32957004	Client ID:	WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Zinc-65	U	-0.0651	+/-0.990	1.38	0.100	pCi/g					
Zirconium-95	U	1.30	+/-0.920	1.42	0.100	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	CRS	11/03/00	1813	50652
EPA 300.0 PREP	EPA 300.0 Oxalate soil Federal	RWS	11/08/00	1314	52579
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	HSC	10/24/00	1800	50188
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	11/08/00	1314	52578
SW846 3050B	846 3050BS PREP	KLD1	10/24/00	1700	50200
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	10/24/00	1900	50190

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	EPA 300.0
5	EPA 300.0
6	EPA 300.0
7	EPA 300.0
8	SW846 7471A
9	SW846 6010B
10	SW846 6010B
11	SW846 6010B
12	SW846 6010B
13	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 689-2-B
Sample ID: 32957004

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

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Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	696-1-T		Project:	WSRC00497
Sample ID:	32957005		Client ID:	WSRC006
Matrix:	Misc. Solid			
Collect Date:	13-OCT-00			
Receive Date:	19-OCT-00			
Collector:	Client			

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Soil Federal											
Oxalate	U	0.00	1.13	6.00	mg/kg	1	RWS	11/08/00	2106	52629	1
EPA300.0 Sulfate in Solids											
Nitrite	U	0.00	1.98	4.94	mg/kg	10	HSC	10/30/00	1912	50370	3
Ortho-phosphate		124	3.95	9.88	mg/kg	10					
Nitrate		37500	198	494	mg/kg	1000	HSC	10/30/00	2316	50370	4
Sulfate		63300	790	2000	mg/kg	1000	RWS	11/09/00	1817	52615	6
Bromide	U	0.00	4.00	12.5	mg/kg	25	RWS	11/10/00	1104	52615	7
Chloride		330	6.50	25.0	mg/kg	25					
Fluoride		174	4.25	12.5	mg/kg	25					
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		20.7	3.92	8.62	ug/kg	1	AW2	10/25/00	1158	50427	8
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		13500000	755	4900	ug/kg	2	RMJ	11/17/00	1228	50462	9
Antimony, total recoverable		2160	160	980	ug/kg	2					
Arsenic, total recoverable		1050000	256	490	ug/kg	2					
Barium. total recoverable		92200	91.1	490	ug/kg	2					
Beryllium, total recoverable		70500	61.0	490	ug/kg	2					
Boron, total recoverable		283000	804	4900	ug/kg	2					
Cadmium, total recoverable		33500	74.8	490	ug/kg	2					
Calcium, total recoverable		15400000	2350	9800	ug/kg	2					
Chromium, total recoverable		329000	126	490	ug/kg	2					
Cobalt, total recoverable		781000	109	490	ug/kg	2					
Copper, total recoverable		1020000	196	490	ug/kg	2					
Iron, total recoverable		43900000	784	4900	ug/kg	2					
Lead, total recoverable		381000	194	490	ug/kg	2					
Magnesium, total recoverable		34900000	361	1960	ug/kg	2					
Molybdenum		816000	167	980	ug/kg	2					
Nickel, total recoverable		975000	141	490	ug/kg	2					
Selenium, total recoverable		21200	285	490	ug/kg	2					
Silver, total recoverable		1430	197	490	ug/kg	2					
Strontium		85500	51.1	490	ug/kg	2					
Thallium, total recoverable		3480	392	980	ug/kg	2					
Tin, total recoverable		8360	283	980	ug/kg	2					

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Client Sample ID: 696-1-T
Sample ID: 32957005

Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP Federal												
6010 ICP SCAN Metals Soil												
Titanium		216000		65.9	490	ug/kg	2					
Uranium		440000		1730	4900	ug/kg	2					
Vanadium, total recoverable		917000		145	490	ug/kg	2					
Zinc, total recoverable		454000		270	490	ug/kg	2					
Potassium, total recoverable		20900000		22500	49000	ug/kg	10	RMJ	11/17/00	1401	50462	10
Sodium, total recoverable		52500000		3000	49000	ug/kg	10					
Manganese, total recoverable		7820000		1740	9800	ug/kg	20	RMJ	11/17/00	1539	50462	11
Rad Gamma Spec												
Gammaspec, Gamma, solid												
Actinium-227		333	+/-6.45	7.19	0.500	pCi/g		SRB	11/13/00	0845	52273	12
Actinium-228		132	+/-3.07	2.07	0.500	pCi/g						
Antimony-124	R4	2.48	+/-0.625	0.720	0.050	pCi/g						
Antimony-125	R4	19.1	+/-1.66	1.87	0.100	pCi/g						
Barium-133	U	0.576	+/-0.517	0.728	0.050	pCi/g						
Californium-249	R4	4.34	+/-0.512	0.703	0.050	pCi/g						
Californium-251	U	-1.19	+/-1.59	2.54	0.200	pCi/g						
Cerium-141	R4	3.93	+/-1.24	1.82	0.050	pCi/g						
Cerium-144	U	-0.338	+/-2.64	4.27	0.500	pCi/g						
Cesium-134	R4	1.78	+/-0.449	0.484	0.050	pCi/g						
Cesium-135	R4	280	+/-3.12	2.75	0.200	pCi/g						
Cesium-137	U	0.487	+/-0.397	0.533	0.050	pCi/g						
Cobalt-57	R4	4.77	+/-0.463	0.528	0.050	pCi/g						
Cobalt-58	U	-0.24	+/-0.428	0.688	0.050	pCi/g						
Cobalt-60	U	-0.503	+/-0.429	0.606	0.050	pCi/g						
Europium-152	U	-3.06	+/-1.28	1.75	0.100	pCi/g						
Europium-154	R4	2.03	+/-1.28	1.79	0.500	pCi/g						
Lead-212		136	+/-1.15	1.05	0.100	pCi/g						
Manganese-54	R4	1.86	+/-0.462	0.577	0.100	pCi/g						
Neptunium-239	R4	3.85	+/-2.55	3.72	5.00	pCi/g						
Niobium-94	R4	4.82	+/-0.524	0.610	1.00	pCi/g						
Potassium-40		39.5	+/-8.53	6.23	0.500	pCi/g						
Promethium-144	U	0.233	+/-0.316	0.518	0.050	pCi/g						
Promethium-146	R4	3.49	+/-0.618	0.783	0.050	pCi/g						
Radium-226		725	+/-2.73	0.999	1.00	pCi/g						
Radium-228		132	+/-3.07	2.07	0.500	pCi/g						
Ruthenium-103	U	-0.122	+/-0.502	0.829	0.050	pCi/g						
Ruthenium-106	U	-0.293	+/-2.92	4.78	0.500	pCi/g						
Sodium-22	J	0.732	+/-0.463	0.592	0.050	pCi/g						
Tin-113	U	0.181	+/-0.627	0.869	0.050	pCi/g						
Tin-126	R4	15.9	+/-1.46	2.02	0.100	pCi/g						
Yttrium-88	R4	3.70	+/-0.564	0.551	0.050	pCi/g						

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Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	696-1-T	Project:	WSRC00497
Sample ID:	32957005	Client ID:	WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Zinc-65	R4	10.3	+/-1.00	1.59	0.100	pCi/g					
Zirconium-95	U	1.06	+/-0.877	1.27	0.100	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	CRS	11/03/00	1813	50652
EPA 300.0 PREP	EPA 300.0 Oxalate soil Federal	RWS	11/08/00	1314	52579
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	HSC	10/24/00	1800	50188
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	11/08/00	1314	52578
SW846 3050B	846 3050BS PREP	KLD1	10/24/00	1700	50200
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	10/24/00	1900	50190

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	EPA 300.0
5	EPA 300.0
6	EPA 300.0
7	EPA 300.0
8	SW846 7471A
9	SW846 6010B
10	SW846 6010B
11	SW846 6010B
12	DOE EML HASL 300

Notes:

The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Project: HazWaste Contract

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Client Sample ID: 696-1-T
Sample ID: 32957005

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

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Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	696-1-B	Project:	WSRC00497
Sample ID:	32957006	Client ID:	WSRC006
Matrix:	Misc. Solid		
Collect Date:	13-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Soil Federal											
Oxalate	U	0.00	1.13	6.00	mg/kg	1	RWS	11/08/00	2126	52629	1
EPA300.0 Sulfate in Solids											
Nitrite	U	0.00	2.00	5.00	mg/kg	10	HSC	10/30/00	1926	50370	3
Ortho-phosphate		117	4.00	10.0	mg/kg	10					
Nitrate		37700	200	500	mg/kg	1000	HSC	10/30/00	2331	50370	4
Sulfate		71200	790	2000	mg/kg	1000	RWS	11/09/00	1831	52615	6
Bromide	U	0.00	4.00	12.5	mg/kg	25	RWS	11/10/00	1202	52615	7
Chloride		332	6.50	25.0	mg/kg	25					
Fluoride		196	4.25	12.5	mg/kg	25					
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		17.2	4.01	8.81	ug/kg	1	AW2	10/25/00	1200	50427	8
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		13500000	733	4760	ug/kg	2	RMJ	11/17/00	1233	50462	9
Antimony, total recoverable		1860	155	952	ug/kg	2					
Arsenic, total recoverable		990000	249	476	ug/kg	2					
Barium. total recoverable		88500	88.5	476	ug/kg	2					
Beryllium, total recoverable		60000	59.2	476	ug/kg	2					
Boron, total recoverable		277000	781	4760	ug/kg	2					
Cadmium, total recoverable		29100	72.7	476	ug/kg	2					
Calcium, total recoverable		14600000	2290	9520	ug/kg	2					
Chromium, total recoverable		321000	123	476	ug/kg	2					
Cobalt, total recoverable		762000	106	476	ug/kg	2					
Copper, total recoverable		1000000	190	476	ug/kg	2					
Iron, total recoverable		43600000	762	4760	ug/kg	2					
Lead, total recoverable		361000	189	476	ug/kg	2					
Magnesium, total recoverable		33800000	350	1900	ug/kg	2					
Molybdenum		745000	162	952	ug/kg	2					
Nickel, total recoverable		951000	137	476	ug/kg	2					
Selenium, total recoverable		20100	277	476	ug/kg	2					
Silver, total recoverable		1280	191	476	ug/kg	2					
Strontium		83600	49.6	476	ug/kg	2					
Thallium, total recoverable		3020	381	952	ug/kg	2					
Tin, total recoverable		8210	275	952	ug/kg	2					

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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 696-1-B
Sample ID: 32957006

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP Federal												
6010 ICP SCAN Metals Soil												
Titanium		216000		64.0	476	ug/kg	2					
Uranium		435000		1680	4760	ug/kg	2					
Vanadium, total recoverable		957000		141	476	ug/kg	2					
Zinc, total recoverable		454000		262	476	ug/kg	2					
Potassium, total recoverable		22600000		21900	47600	ug/kg	10	RMJ	11/17/00	1406	50462	10
Sodium, total recoverable		59300000		2910	47600	ug/kg	10					
Manganese, total recoverable		7870000		1690	9520	ug/kg	20	RMJ	11/17/00	1544	50462	11
Rad Gamma Spec												
Gammaspec, Gamma, solid												
Actinium-227		353	+/-6.93	7.71	0.500	pCi/g		SRB	11/13/00	0845	52273	12
Actinium-228		132	+/-3.57	2.59	0.500	pCi/g						
Antimony-124	U	0.0888	+/-0.610	0.841	0.050	pCi/g						
Antimony-125	R4	21.2	+/-1.80	2.24	0.100	pCi/g						
Barium-133	R4	0.920	+/-0.540	0.846	0.050	pCi/g						
Californium-249	R4	3.50	+/-0.554	0.826	0.050	pCi/g						
Californium-251	U	0.795	+/-1.94	2.79	0.200	pCi/g						
Cerium-141	R4	22.0	+/-1.50	2.15	0.050	pCi/g						
Cerium-144	U	-1.38	+/-3.03	4.60	0.500	pCi/g						
Cesium-134	R4	5.21	+/-0.469	0.718	0.050	pCi/g						
Cesium-135	R4	498	+/-4.93	2.97	0.200	pCi/g						
Cesium-137	R4	1.41	+/-0.509	0.722	0.050	pCi/g						
Cobalt-57	R4	5.13	+/-0.472	0.550	0.050	pCi/g						
Cobalt-58	U	-4.33	+/-0.560	0.862	0.050	pCi/g						
Cobalt-60	U	-0.247	+/-0.464	0.745	0.050	pCi/g						
Europium-152	U	-7.02	+/-1.42	1.94	0.100	pCi/g						
Europium-154	U	2.10	+/-1.59	2.11	0.500	pCi/g						
Lead-212		133	+/-1.25	1.12	0.100	pCi/g						
Manganese-54	R4	2.49	+/-0.775	0.723	0.100	pCi/g						
Neptunium-239	U	2.02	+/-2.63	3.81	5.00	pCi/g						
Niobium-94	R4	5.29	+/-0.661	0.750	1.00	pCi/g						
Potassium-40		35.1	+/-7.80	7.46	0.500	pCi/g						
Promethium-144	U	0.0298	+/-0.411	0.645	0.050	pCi/g						
Promethium-146	R4	3.88	+/-0.862	0.919	0.050	pCi/g						
Radium-226		773	+/-3.35	1.18	1.00	pCi/g						
Radium-228		132	+/-3.57	2.59	0.500	pCi/g						
Ruthenium-103	U	-0.0464	+/-0.626	0.993	0.050	pCi/g						
Ruthenium-106	U	-0.172	+/-3.74	5.89	0.500	pCi/g						
Sodium-22	J	0.756	+/-0.575	0.726	0.050	pCi/g						
Tin-113	U	0.0212	+/-0.728	1.02	0.050	pCi/g						
Tin-126	R4	73.6	+/-10.5	1.81	0.100	pCi/g						
Yttrium-88	R4	3.77	+/-0.896	0.650	0.050	pCi/g						

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Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	696-1-B	Project:	WSRC00497
Sample ID:	32957006	Client ID:	WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Zinc-65	R4	10.1	+/-1.18	1.86	0.100	pCi/g					
Zirconium-95	U	0.875	+/-1.09	1.59	0.100	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	CRS	11/03/00	1813	50652
EPA 300.0 PREP	EPA 300.0 Oxalate soil Federal	RWS	11/08/00	1314	52579
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	HSC	10/24/00	1800	50188
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	11/08/00	1314	52578
SW846 3050B	846 3050BS PREP	KLD1	10/24/00	1700	50200
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	10/24/00	1900	50190

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	EPA 300.0
5	EPA 300.0
6	EPA 300.0
7	EPA 300.0
8	SW846 7471A
9	SW846 6010B
10	SW846 6010B
11	SW846 6010B
12	DOE EML HASL 300

Notes:

The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 696-1-B
Sample ID: 32957006

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Lee M. Heath
Reviewed by

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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 696-2-T
Sample ID: 32957007
Matrix: Misc. Solid
Collect Date: 13-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Soil Federal											
Oxalate	U	0.00	1.13	6.00	mg/kg	1	RWS	11/08/00	2227	52629	1
EPA300.0 Sulfate in Solids											
Nitrite		10.4	1.99	4.98	mg/kg	10	HSC	10/30/00	2009	50370	3
Ortho-phosphate	U	0.00	3.98	9.95	mg/kg	10					
Nitrate		37500	199	498	mg/kg	1000	HSC	10/30/00	2345	50370	4
Sulfate		62300	790	2000	mg/kg	1000	RWS	11/09/00	1845	52615	6
Bromide	U	0.00	4.00	12.5	mg/kg	25	RWS	11/10/00	1216	52615	7
Chloride		306	6.50	25.0	mg/kg	25					
Fluoride		183	4.25	12.5	mg/kg	25					
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		18.8	4.21	9.24	ug/kg	1	AW2	10/25/00	1202	50427	8
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		13200000	713	4630	ug/kg	2	RMJ	11/17/00	1239	50462	9
Antimony, total recoverable		2240	151	926	ug/kg	2					
Arsenic, total recoverable		1020000	242	463	ug/kg	2					
Barium. total recoverable		88700	86.0	463	ug/kg	2					
Beryllium, total recoverable		66300	57.6	463	ug/kg	2					
Boron, total recoverable		279000	759	4630	ug/kg	2					
Cadmium, total recoverable		30500	70.6	463	ug/kg	2					
Calcium, total recoverable		15000000	2220	9260	ug/kg	2					
Chromium, total recoverable		316000	119	463	ug/kg	2					
Cobalt, total recoverable		818000	103	463	ug/kg	2					
Copper, total recoverable		951000	185	463	ug/kg	2					
Iron, total recoverable		42700000	741	4630	ug/kg	2					
Lead, total recoverable		376000	183	463	ug/kg	2					
Magnesium, total recoverable		34100000	341	1850	ug/kg	2					
Molybdenum		773000	157	926	ug/kg	2					
Nickel, total recoverable		1030000	133	463	ug/kg	2					
Selenium, total recoverable		21000	269	463	ug/kg	2					
Silver, total recoverable		1320	186	463	ug/kg	2					
Strontium		81400	48.2	463	ug/kg	2					
Thallium, total recoverable		2740	370	926	ug/kg	2					
Tin, total recoverable		7990	268	926	ug/kg	2					

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Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 696-2-T
Sample ID: 32957007

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP Federal												
6010 ICP SCAN Metals Soil												
Titanium		196000		62.2	463	ug/kg	2					
Uranium		419000		1630	4630	ug/kg	2					
Vanadium, total recoverable		706000		137	463	ug/kg	2					
Zinc, total recoverable		411000		255	463	ug/kg	2					
Potassium, total recoverable		27700000		21300	46300	ug/kg	10	RMJ	11/17/00	1412	50462	10
Sodium, total recoverable		70100000		2830	46300	ug/kg	10					
Manganese, total recoverable		7860000		1640	9260	ug/kg	20	RMJ	11/17/00	1550	50462	11
Rad Gamma Spec												
Gammaspec, Gamma, solid												
Actinium-227		350	+/-11.2	11.9	0.500	pCi/g		SRB	11/13/00	0846	52273	12
Actinium-228		126	+/-4.57	3.63	0.500	pCi/g						
Antimony-124	U	-1.38	+/-1.49	1.32	0.050	pCi/g						
Antimony-125	R4	24.0	+/-2.87	3.29	0.100	pCi/g						
Barium-133	R4	15.3	+/-0.954	1.46	0.050	pCi/g						
Californium-249	R4	4.39	+/-0.955	1.20	0.050	pCi/g						
Californium-251	U	-2.94	+/-2.55	4.07	0.200	pCi/g						
Cerium-141	R4	81.9	+/-3.68	2.80	0.050	pCi/g						
Cerium-144	U	-3.51	+/-4.74	6.60	0.500	pCi/g						
Cesium-134	R4	6.23	+/-0.726	1.08	0.050	pCi/g						
Cesium-135	R4	307	+/-4.36	7.74	0.200	pCi/g						
Cesium-137	R4	1.63	+/-0.701	0.982	0.050	pCi/g						
Cobalt-57	R4	3.19	+/-0.995	0.781	0.050	pCi/g						
Cobalt-58	U	-0.553	+/-0.829	1.17	0.050	pCi/g						
Cobalt-60	U	-0.43	+/-0.579	0.932	0.050	pCi/g						
Europium-152	R4	3.56	+/-2.25	3.31	0.100	pCi/g						
Europium-154	R4	3.47	+/-2.47	2.63	0.500	pCi/g						
Lead-212		140	+/-1.83	1.74	0.100	pCi/g						
Manganese-54	U	0.347	+/-0.509	1.07	0.100	pCi/g						
Neptunium-239	U	-5.99	+/-3.99	5.54	5.00	pCi/g						
Niobium-94	R4	5.00	+/-0.827	0.989	1.00	pCi/g						
Potassium-40		40.7	+/-12.4	9.48	0.500	pCi/g						
Promethium-144	U	-0.0857	+/-0.569	0.895	0.050	pCi/g						
Promethium-146	R4	4.47	+/-1.12	1.33	0.050	pCi/g						
Radium-226		789	+/-4.35	1.84	1.00	pCi/g						
Radium-228		126	+/-4.57	3.63	0.500	pCi/g						
Ruthenium-103	U	0.0231	+/-0.921	1.46	0.050	pCi/g						
Ruthenium-106	U	3.00	+/-5.28	8.38	0.500	pCi/g						
Sodium-22	J	1.25	+/-0.893	0.921	0.050	pCi/g						
Tin-113	R4	1.96	+/-1.11	1.54	0.050	pCi/g						
Tin-126	R4	84.8	+/-2.46	2.62	0.100	pCi/g						
Yttrium-88	R4	3.09	+/-0.694	1.10	0.050	pCi/g						

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Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	696-2-T	Project:	WSRC00497
Sample ID:	32957007	Client ID:	WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Zinc-65	R4	10.6	+/-1.62	2.49	0.100	pCi/g					
Zirconium-95	U	1.20	+/-1.40	2.29	0.100	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	CRS	11/03/00	1813	50652
EPA 300.0 PREP	EPA 300.0 Oxalate soil Federal	RWS	11/08/00	1314	52579
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	HSC	10/24/00	1800	50188
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	11/08/00	1314	52578
SW846 3050B	846 3050BS PREP	KLD1	10/24/00	1700	50200
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	10/24/00	1900	50190

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	EPA 300.0
5	EPA 300.0
6	EPA 300.0
7	EPA 300.0
8	SW846 7471A
9	SW846 6010B
10	SW846 6010B
11	SW846 6010B
12	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 696-2-T
Sample ID: 32957007

Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Lee Heath
Reviewed by

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Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 696-2-B
Sample ID: 32957008
Matrix: Misc. Solid
Collect Date: 13-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
EPA 300.0 Oxalate Soil Federal										
Oxalate	U	0.00	1.13	6.00	mg/kg	1	RWS 11/08/00	2248	52629	1
EPA300.0 Sulfate in Solids										
Nitrite		10.3	2.00	5.00	mg/kg	10	HSC 10/30/00	2024	50370	3
Ortho-phosphate	U	0.00	4.00	10.0	mg/kg	10				
Nitrate		36700	200	500	mg/kg	1000	HSC 10/30/00	2359	50370	4
Sulfate		64200	790	2000	mg/kg	1000	RWS 11/10/00	0909	52615	6
Bromide		172	4.00	12.5	mg/kg	25	RWS 11/10/00	1230	52615	7
Chloride		303	6.50	25.0	mg/kg	25				
Fluoride		175	4.25	12.5	mg/kg	25				
Mercury Analysis Federal										
7471 Cold Vapor Hg in Solid										
Mercury		20.6	3.94	8.66	ug/kg	1	AW2 10/25/00	1207	50427	8
Metals Analysis-ICP Federal										
6010 ICP SCAN Metals Soil										
Aluminum, total recoverable		13800000	755	4900	ug/kg	2	RMJ 11/17/00	1244	50462	9
Antimony, total recoverable		1890	160	980	ug/kg	2				
Arsenic, total recoverable		1040000	256	490	ug/kg	2				
Barium. total recoverable		89300	91.1	490	ug/kg	2				
Beryllium, total recoverable		61500	61.0	490	ug/kg	2				
Boron, total recoverable		292000	804	4900	ug/kg	2				
Cadmium, total recoverable		27500	74.8	490	ug/kg	2				
Calcium, total recoverable		15200000	2350	9800	ug/kg	2				
Chromium, total recoverable		323000	126	490	ug/kg	2				
Cobalt, total recoverable		908000	109	490	ug/kg	2				
Copper, total recoverable		953000	196	490	ug/kg	2				
Iron, total recoverable		45700000	784	4900	ug/kg	2				
Lead, total recoverable		386000	194	490	ug/kg	2				
Magnesium, total recoverable		35200000	361	1960	ug/kg	2				
Molybdenum		732000	167	980	ug/kg	2				
Nickel, total recoverable		1160000	141	490	ug/kg	2				
Selenium, total recoverable		22000	285	490	ug/kg	2				
Silver, total recoverable		1160	197	490	ug/kg	2				
Strontium		83300	51.1	490	ug/kg	2				
Thallium, total recoverable		2310	392	980	ug/kg	2				
Tin, total recoverable		8060	283	980	ug/kg	2				

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Project: HazWaste Contract

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Client Sample ID: 696-2-B
Sample ID: 32957008

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate		Time	Batch	Method
Metals Analysis-ICP Federal												
6010 ICP SCAN Metals Soil												
Titanium		191000		65.9	490	ug/kg	2					
Uranium		431000		1730	4900	ug/kg	2					
Vanadium, total recoverable		635000		145	490	ug/kg	2					
Zinc, total recoverable		431000		270	490	ug/kg	2					
Potassium, total recoverable		31800000		22500	49000	ug/kg	10	RMJ	11/17/00	1417	50462	10
Sodium, total recoverable		77500000		3000	49000	ug/kg	10					
Manganese, total recoverable		8070000		1740	9800	ug/kg	20	RMJ	11/17/00	1555	50462	11
Rad Gamma Spec												
Gammaspec, Gamma, solid												
Actinium-227		358	+/-6.75	7.61	0.500	pCi/g		SRB	11/13/00	0846	52273	12
Actinium-228		136	+/-3.14	2.27	0.500	pCi/g						
Antimony-124	U	0.548	+/-0.537	0.772	0.050	pCi/g						
Antimony-125	R4	22.0	+/-1.89	2.11	0.100	pCi/g						
Barium-133	R4	1.10	+/-0.550	0.794	0.050	pCi/g						
Californium-249	R4	3.80	+/-0.549	0.757	0.050	pCi/g						
Californium-251	U	-2.52	+/-1.69	2.66	0.200	pCi/g						
Cerium-141	R4	135	+/-1.96	2.10	0.050	pCi/g						
Cerium-144	U	2.94	+/-2.93	4.40	0.500	pCi/g						
Cesium-134	R4	1.82	+/-0.397	0.591	0.050	pCi/g						
Cesium-135	R4	493	+/-4.96	2.93	0.200	pCi/g						
Cesium-137	U	0.577	+/-0.431	0.603	0.050	pCi/g						
Cobalt-57	R4	4.69	+/-0.552	0.536	0.050	pCi/g						
Cobalt-58	U	-0.80	+/-0.478	0.749	0.050	pCi/g						
Cobalt-60	U	-0.0919	+/-0.407	0.666	0.050	pCi/g						
Europium-152	U	-0.243	+/-1.40	1.92	0.100	pCi/g						
Europium-154	U	1.05	+/-1.33	1.86	0.500	pCi/g						
Lead-212		143	+/-1.20	1.12	0.100	pCi/g						
Manganese-54	R4	2.55	+/-0.536	0.622	0.100	pCi/g						
Neptunium-239	U	3.54	+/-2.21	3.81	5.00	pCi/g						
Niobium-94	R4	4.81	+/-0.678	0.658	1.00	pCi/g						
Potassium-40	R4	24.4	+/-5.06	7.72	0.500	pCi/g						
Promethium-144	U	0.477	+/-0.443	0.571	0.050	pCi/g						
Promethium-146	R4	4.19	+/-0.833	0.847	0.050	pCi/g						
Radium-226		743	+/-3.08	1.08	1.00	pCi/g						
Radium-228		136	+/-3.14	2.27	0.500	pCi/g						
Ruthenium-103	U	-0.292	+/-0.556	0.904	0.050	pCi/g						
Ruthenium-106	U	2.02	+/-3.27	5.31	0.500	pCi/g						
Sodium-22	U	0.380	+/-0.480	0.654	0.050	pCi/g						
Tin-113	U	0.0904	+/-0.694	0.945	0.050	pCi/g						
Tin-126	R4	61.0	+/-1.61	2.09	0.100	pCi/g						
Yttrium-88		3.54	+/-0.766	0.619	0.050	pCi/g						

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Project: HazWaste Contract

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Client Sample ID: 696-2-B
Sample ID: 32957008

Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Zinc-65	R4	20.3	+/-1.12	1.95	0.100	pCi/g					
Zirconium-95	U	0.621	+/-0.982	1.39	0.100	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	CRS	11/03/00	1813	50652
EPA 300.0 PREP	EPA 300.0 Oxalate soil Federal	RWS	11/08/00	1314	52579
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	HSC	10/24/00	1800	50188
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	11/08/00	1314	52578
SW846 3050B	846 3050BS PREP	KLD1	10/24/00	1700	50200
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	10/24/00	1900	50190

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	EPA 300.0
5	EPA 300.0
6	EPA 300.0
7	EPA 300.0
8	SW846 7471A
9	SW846 6010B
10	SW846 6010B
11	SW846 6010B
12	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 696-2-B
Sample ID: 32957008

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

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Project: HazWaste Contract

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Client Sample ID: 696-GRAB
Sample ID: 32957009
Matrix: Misc. Solid
Collect Date: 13-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Soil Federal											
Oxalate	U	0.00	1.13	6.00	mg/kg	1	RWS	11/08/00	2308	52629	1
EPA300.0 Sulfate in Solids											
Nitrite	U	0.00	2.00	4.99	mg/kg	10	HSC	10/30/00	2038	50370	3
Ortho-phosphate		137	3.99	9.98	mg/kg	10					
Nitrate		38600	200	499	mg/kg	1000	HSC	10/31/00	0042	50370	4
Sulfate		67200	790	2000	mg/kg	1000	RWS	11/10/00	0924	52615	6
Bromide	U	0.00	4.00	12.5	mg/kg	25	RWS	11/10/00	1245	52615	7
Chloride		283	6.50	25.0	mg/kg	25					
Fluoride		179	4.25	12.5	mg/kg	25					
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		26.2	3.95	8.68	ug/kg	1	AW2	10/25/00	1209	50427	8
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		14700000	720	4670	ug/kg	2	RMJ	11/17/00	1250	50462	9
Antimony, total recoverable		951	152	935	ug/kg	2					
Arsenic, total recoverable		1030000	244	467	ug/kg	2					
Barium. total recoverable		90500	86.8	467	ug/kg	2					
Beryllium, total recoverable		34600	58.1	467	ug/kg	2					
Boron, total recoverable		301000	766	4670	ug/kg	2					
Cadmium, total recoverable		14900	71.3	467	ug/kg	2					
Calcium, total recoverable		14600000	2240	9350	ug/kg	2					
Chromium, total recoverable		318000	121	467	ug/kg	2					
Cobalt, total recoverable		1090000	104	467	ug/kg	2					
Copper, total recoverable		973000	187	467	ug/kg	2					
Lead, total recoverable		400000	185	467	ug/kg	2					
Magnesium, total recoverable		34800000	344	1870	ug/kg	2					
Molybdenum		513000	159	935	ug/kg	2					
Nickel, total recoverable		1450000	135	467	ug/kg	2					
Selenium, total recoverable		24300	272	467	ug/kg	2					
Silver, total recoverable		758	188	467	ug/kg	2					
Strontium		82100	48.7	467	ug/kg	2					
Thallium, total recoverable		1220	374	935	ug/kg	2					
Tin, total recoverable		7160	270	935	ug/kg	2					
Titanium		176000	62.8	467	ug/kg	2					

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Client Sample ID: 696-GRAB
Sample ID: 32957009
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate		Time	Batch	Method
Metals Analysis-ICP Federal												
6010 ICP SCAN Metals Soil												
Uranium		462000		1640	4670	ug/kg	2					
Vanadium, total recoverable		582000		138	467	ug/kg	2					
Zinc, total recoverable		461000		257	467	ug/kg	2					
Potassium, total recoverable		26900000		21400	46700	ug/kg	10	RMJ	11/17/00	1423	50462	10
Sodium, total recoverable		59800000		2860	46700	ug/kg	10					
Manganese, total recoverable		9090000		1650	9350	ug/kg	20	RMJ	11/17/00	1601	50462	11
Iron, total recoverable		90600000		3740	23400	ug/kg	10	RMJ	11/17/00	1423	50462	12
Rad Gamma Spec												
Gammaspec, Gamma, solid												
Actinium-227		400	+/-6.91	7.04	0.500	pCi/g		SRB	11/13/00	0847	52273	13
Actinium-228		118	+/-2.90	2.14	0.500	pCi/g						
Antimony-124	R4	1.29	+/-0.619	0.711	0.050	pCi/g						
Antimony-125	R4	22.1	+/-1.60	1.94	0.100	pCi/g						
Barium-133	R4	1.07	+/-0.553	0.710	0.050	pCi/g						
Californium-249	R4	3.82	+/-0.496	0.678	0.050	pCi/g						
Californium-251	U	-0.751	+/-1.54	2.44	0.200	pCi/g						
Cerium-141	R4	129	+/-1.84	2.16	0.050	pCi/g						
Cerium-144	U	-4.99	+/-2.57	4.10	0.500	pCi/g						
Cesium-134	R4	0.930	+/-0.445	0.493	0.050	pCi/g						
Cesium-135	R4	313	+/-2.95	2.69	0.200	pCi/g						
Cesium-137	U	0.0833	+/-0.384	0.551	0.050	pCi/g						
Cobalt-57	R4	5.28	+/-0.442	0.499	0.050	pCi/g						
Cobalt-58	U	-0.346	+/-0.503	0.702	0.050	pCi/g						
Cobalt-60	U	-0.323	+/-0.389	0.637	0.050	pCi/g						
Europium-152	R4	5.45	+/-1.28	1.73	0.100	pCi/g						
Europium-154	U	1.47	+/-1.31	1.81	0.500	pCi/g						
Lead-212		124	+/-1.08	1.02	0.100	pCi/g						
Manganese-54	R4	1.81	+/-0.462	0.582	0.100	pCi/g						
Neptunium-239	R4	3.84	+/-2.43	3.60	5.00	pCi/g						
Niobium-94	R4	4.72	+/-0.561	0.605	1.00	pCi/g						
Potassium-40		38.8	+/-7.51	6.31	0.500	pCi/g						
Promethium-144	U	0.297	+/-0.372	0.515	0.050	pCi/g						
Promethium-146	R4	2.56	+/-0.545	0.760	0.050	pCi/g						
Radium-226		695	+/-2.67	1.02	1.00	pCi/g						
Radium-228		118	+/-2.90	2.14	0.500	pCi/g						
Ruthenium-103	U	-0.0042	+/-0.497	0.819	0.050	pCi/g						
Ruthenium-106	U	-0.818	+/-2.96	4.82	0.500	pCi/g						
Sodium-22	U	0.530	+/-0.472	0.622	0.050	pCi/g						
Tin-113	U	0.00982	+/-0.610	0.840	0.050	pCi/g						
Tin-126	R4	71.5	+/-1.36	2.04	0.100	pCi/g						
Yttrium-88		3.78	+/-0.658	0.561	0.050	pCi/g						

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Project: HazWaste Contract

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Client Sample ID: 696-GRAB
Sample ID: 32957009
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec											
Gammaspec, Gamma, solid											
Zinc-65	R4	6.22	+/-1.00	1.50	0.100	pCi/g					
Zirconium-95	R4	1.59	+/-0.892	1.29	0.100	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	CRS	11/03/00	1813	50652
EPA 300.0 PREP	EPA 300.0 Oxalate soil Federal	RWS	11/08/00	1314	52579
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	HSC	10/24/00	1800	50188
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	RWS	11/08/00	1314	52578
SW846 3050B	846 3050BS PREP	KLD1	10/24/00	1700	50200
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	10/24/00	1900	50190

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	EPA 300.0
5	EPA 300.0
6	EPA 300.0
7	EPA 300.0
8	SW846 7471A
9	SW846 6010B
10	SW846 6010B
11	SW846 6010B
12	SW846 6010B
13	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Project:	HazWaste Contract	Page	4 of 4

Client Sample ID:	696-GRAB	Project:	WSRC00497
Sample ID:	32957009	Client ID:	WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

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Client Sample ID:	689-1-T	Proiect:	WSRC00497
Sample ID:	33055001	Client ID:	WSRC006
Matrix:	MISC. SOLID		
Collect Date:	12-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Mercury Analysis Federal										
TCLP Hg in Solid										
Mercury	U	0.000191	0.0006	0.002	mg/L	1	AW2 11/03/00	1225	51662	1
Metals Analysis-ICP Federal										
TCLP ICP Metals for Solid										
Antimony, total recoverable		2.02	0.0343	0.100	mg/L	10	RMJ 11/19/00	1352	51690	2
Arsenic, total recoverable		5.04	0.0257	0.500	mg/L	10				
Barium. total recoverable	J	1.15	0.00748	10.0	mg/L	10				
Beryllium, total recoverable		1.88	0.00474	0.050	mg/L	10				
Cadmium, total recoverable		0.971	0.00631	0.100	mg/L	10				
Chromium, total recoverable		18.4	0.0106	0.500	mg/L	10				
Lead, total recoverable		3.92	0.0183	0.500	mg/L	10				
Nickel, total recoverable		4.98	0.0309	0.050	mg/L	10				
Selenium, total recoverable		1.72	0.0236	0.100	mg/L	10				
Silver, total recoverable		0.514	0.00529	0.500	mg/L	10				
Thallium, total recoverable		2.01	0.0393	0.100	mg/L	10				
Vanadium, total recoverable		2.07	0.0089	0.050	mg/L	10				
Zinc, total recoverable		1.81	0.0389	0.050	mg/L	10				

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:

The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result

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Client Sample ID: 689-1-T
Sample ID: 33055001
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

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Client Sample ID:	689-1-B	Project:	WSRC00497
Sample ID:	33055002	Client ID:	WSRC006
Matrix:	MISC. SOLID		
Collect Date:	12-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.000428	0.0006	0.002	mg/L	1	AW2	11/03/00	1228	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.0262	0.0343	0.100	mg/L	10	RMJ	11/19/00	1357	51690	2
Arsenic, total recoverable	J	0.0608	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.224	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	J	0.00549	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0235	0.00631	0.100	mg/L	10					
Chromium, total recoverable		8.75	0.0106	0.500	mg/L	10					
Lead, total recoverable	J	0.0249	0.0183	0.500	mg/L	10					
Nickel, total recoverable		51.1	0.0309	0.050	mg/L	10					
Selenium, total recoverable		1.72	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.00188	0.00529	0.500	mg/L	10					
Thallium, total recoverable		0.106	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	U	0.00612	0.0089	0.050	mg/L	10					
Zinc, total recoverable		0.314	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:

The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 689-1-B
Sample ID: 33055002

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company :	Westinghouse Savannah Rivr Co.
Address :	Building 735-16A, Rm 5 P.O. Box 616 Aiken, SC 29802
Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: November 22, 2000

Page 1 of 2

Client Sample ID:	689-2-T	Project:	WSRC00497
Sample ID:	33055003	Client ID:	WSRC006
Matrix:	MISC. SOLID		
Collect Date:	12-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.000315	0.0006	0.002	mg/L	1	AW2	11/03/00	1230	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.0172	0.0343	0.100	mg/L	10	RMJ	11/19/00	1403	51690	2
Arsenic, total recoverable	J	0.0417	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.223	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	J	0.00527	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0256	0.00631	0.100	mg/L	10					
Chromium, total recoverable		8.67	0.0106	0.500	mg/L	10					
Lead, total recoverable	U	0.00366	0.0183	0.500	mg/L	10					
Nickel, total recoverable		50.2	0.0309	0.050	mg/L	10					
Selenium, total recoverable		1.74	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.00153	0.00529	0.500	mg/L	10					
Thallium, total recoverable		0.119	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	U	0.0057	0.0089	0.050	mg/L	10					
Zinc, total recoverable		0.356	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:

The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 689-2-T
Sample ID: 33055003

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 689-2-B
Sample ID: 33055004
Matrix: MISC. SOLID
Collect Date: 12-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.00019	0.0006	0.002	mg/L	1	AW2	11/03/00	1232	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.0268	0.0343	0.100	mg/L	10	RMJ	11/19/00	1408	51690	2
Arsenic, total recoverable	J	0.0405	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.227	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	J	0.00501	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0232	0.00631	0.100	mg/L	10					
Chromium, total recoverable		8.70	0.0106	0.500	mg/L	10					
Lead, total recoverable	U	0.0131	0.0183	0.500	mg/L	10					
Nickel, total recoverable		49.9	0.0309	0.050	mg/L	10					
Selenium, total recoverable		1.70	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.000012	0.00529	0.500	mg/L	10					
Thallium, total recoverable		0.111	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	U	0.00502	0.0089	0.050	mg/L	10					
Zinc, total recoverable		0.305	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Project: HazWaste Contract

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Client Sample ID: 689-2-B
Sample ID: 33055004

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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Project: HazWaste Contract

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Client Sample ID: 696-1-T
Sample ID: 33055005
Matrix: MISC. SOLID
Collect Date: 13-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.000061	0.0006	0.002	mg/L	1	AW2	11/03/00	1234	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.00124	0.0343	0.100	mg/L	10	RMJ	11/19/00	1414	51690	2
Arsenic, total recoverable	J	0.027	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.280	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	U	-0.000236	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0129	0.00631	0.100	mg/L	10					
Chromium, total recoverable	J	0.0162	0.0106	0.500	mg/L	10					
Lead, total recoverable	J	0.0943	0.0183	0.500	mg/L	10					
Nickel, total recoverable	U	0.0232	0.0309	0.050	mg/L	10					
Selenium, total recoverable	U	-0.00155	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.000355	0.00529	0.500	mg/L	10					
Thallium, total recoverable	U	0.0389	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	U	0.00554	0.0089	0.050	mg/L	10					
Zinc, total recoverable		1.62	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Project: HazWaste Contract

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Client Sample ID: 696-1-T
Sample ID: 33055005
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

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Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	696-1-B	Proiect:	WSRC00497
Sample ID:	33055006	Client ID:	WSRC006
Matrix:	MISC. SOLID		
Collect Date:	13-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Mercury Analysis Federal										
TCLP Hg in Solid										
Mercury	U	-0.000067	0.0006	0.002	mg/L	1	AW2 11/03/00	1240	51662	1
Metals Analysis-ICP Federal										
TCLP ICP Metals for Solid										
Antimony, total recoverable	U	-0.0223	0.0343	0.100	mg/L	10	RMJ 11/19/00	1419	51690	2
Arsenic, total recoverable	J	0.0516	0.0257	0.500	mg/L	10				
Barium. total recoverable	J	0.336	0.00748	10.0	mg/L	10				
Beryllium, total recoverable	U	0.00317	0.00474	0.050	mg/L	10				
Cadmium, total recoverable	J	0.0318	0.00631	0.100	mg/L	10				
Chromium, total recoverable		12.7	0.0106	0.500	mg/L	10				
Lead, total recoverable	U	0.0179	0.0183	0.500	mg/L	10				
Nickel, total recoverable		3.92	0.0309	0.050	mg/L	10				
Selenium, total recoverable		0.670	0.0236	0.100	mg/L	10				
Silver, total recoverable	U	0.000544	0.00529	0.500	mg/L	10				
Thallium, total recoverable	J	0.0858	0.0393	0.100	mg/L	10				
Vanadium, total recoverable	J	0.0497	0.0089	0.050	mg/L	10				
Zinc, total recoverable	U	-0.0438	0.0778	0.100	mg/L	20	MNC 11/20/00	1309	51690	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B
3	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected

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Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 696-1-B
Sample ID: 33055006
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

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Project: HazWaste Contract

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Client Sample ID: 696-2-T
Sample ID: 33055007
Matrix: MISC. SOLID
Collect Date: 13-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Mercury Analysis Federal										
TCLP Hg in Solid										
Mercury	U	-0.000132	0.0006	0.002	mg/L	1	AW2 11/03/00	1242	51662	1
Metals Analysis-ICP Federal										
TCLP ICP Metals for Solid										
Antimony, total recoverable	U	-0.0131	0.0343	0.100	mg/L	10	RMJ 11/19/00	1425	51690	2
Arsenic, total recoverable	J	0.0368	0.0257	0.500	mg/L	10				
Barium. total recoverable	J	0.308	0.00748	10.0	mg/L	10				
Beryllium, total recoverable	U	0.00392	0.00474	0.050	mg/L	10				
Cadmium, total recoverable	J	0.0315	0.00631	0.100	mg/L	10				
Chromium, total recoverable		11.9	0.0106	0.500	mg/L	10				
Lead, total recoverable	U	0.0172	0.0183	0.500	mg/L	10				
Nickel, total recoverable		4.19	0.0309	0.050	mg/L	10				
Selenium, total recoverable		0.704	0.0236	0.100	mg/L	10				
Silver, total recoverable	U	0.00129	0.00529	0.500	mg/L	10				
Thallium, total recoverable	J	0.0841	0.0393	0.100	mg/L	10				
Vanadium, total recoverable	J	0.0299	0.0089	0.050	mg/L	10				
Zinc, total recoverable	U	-0.0546	0.0778	0.100	mg/L	20	MNC 11/20/00	1314	51690	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B
3	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected

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Client Sample ID: 696-2-T
Sample ID: 33055007
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

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Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 696-2-B
Sample ID: 33055008
Matrix: MISC. SOLID
Collect Date: 13-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	-0.000111	0.0006	0.002	mg/L	1	AW2	11/03/00	1244	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.00496	0.0343	0.100	mg/L	10	RMJ	11/19/00	1441	51690	2
Arsenic, total recoverable	J	0.0495	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.346	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	U	0.00435	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0365	0.00631	0.100	mg/L	10					
Chromium, total recoverable		11.5	0.0106	0.500	mg/L	10					
Lead, total recoverable	U	0.0173	0.0183	0.500	mg/L	10					
Nickel, total recoverable		6.18	0.0309	0.050	mg/L	10					
Selenium, total recoverable		0.716	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	-0.000137	0.00529	0.500	mg/L	10					
Thallium, total recoverable	J	0.0688	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	J	0.0223	0.0089	0.050	mg/L	10					
Zinc, total recoverable	U	-0.0394	0.0778	0.100	mg/L	20	MNC	11/20/00	1320	51690	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B
3	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected

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Client Sample ID: 696-2-B
Sample ID: 33055008

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	696-GRAB	Proiect:	WSRC00497
Sample ID:	33055009	Client ID:	WSRC006
Matrix:	MISC. SOLID		
Collect Date:	13-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.000525	0.0006	0.002	mg/L	1	AW2	11/03/00	1246	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.0324	0.0343	0.100	mg/L	10	RMJ	11/19/00	1447	51690	2
Arsenic, total recoverable	J	0.0354	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.351	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	U	0.0041	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0315	0.00631	0.100	mg/L	10					
Chromium, total recoverable		9.69	0.0106	0.500	mg/L	10					
Lead, total recoverable	U	0.00479	0.0183	0.500	mg/L	10					
Nickel, total recoverable		14.0	0.0309	0.050	mg/L	10					
Selenium, total recoverable		0.775	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.00123	0.00529	0.500	mg/L	10					
Thallium, total recoverable	J	0.0721	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	J	0.0177	0.0089	0.050	mg/L	10					
Zinc, total recoverable	U	0.0352	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:

The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

GENERAL ENGINEERING LABORATORIES
Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company :	Westinghouse Savannah Rivr Co.
Address :	Building 735-16A, Rm 5 P.O. Box 616 Aiken, SC 29802
Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: November 22, 2000

Page 2 of 2

Client Sample ID:	696-GRAB	Proiect:	WSRC00497
Sample ID:	33055009	Client ID:	WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Reviewed by

QC Summary

Report Date: November 22, 2000
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Client : **Westinghouse Savannah Rivr Co.**
Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802

Contact: **Ms. Janet Crawford**

Workorder: **32957**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography Federal												
Batch 50370												
QC1000120400 32957001 DUP												
Nitrate			38300		39000	mg/kg	2		(0%-33%)	HSC	10/30/00	22:04
Nitrite			11.3		11.4	mg/kg	0 ^		(0%-30%)		10/30/00	18:00
Ortho-phosphate			37.1		29.6	mg/kg	23 ^		(0%-30%)			
QC1000120399 LCS												
Nitrate	49.6				52.3	mg/kg		105	(80%-120%)		10/30/00	17:31
Nitrite	99.3				104	mg/kg		104	(80%-120%)			
Ortho-phosphate	99.3				101	mg/kg		101	(80%-120%)			
QC1000120398 MB												
Nitrate				U	0.00	mg/kg					10/30/00	17:17
Nitrite				U	0.00	mg/kg						
Ortho-phosphate				U	0.00	mg/kg						
QC1000120401 32957001 MS												
Nitrate	50.0		38300		38900	mg/kg		N/A	(70%-130%)		10/30/00	22:19
Nitrite	100		11.3		104	mg/kg		93	(70%-130%)		10/30/00	18:14
Ortho-phosphate	100		37.1		105	mg/kg		68*	(70%-130%)			
Batch 52615												
QC1000127229 32957001 DUP												
Bromide		U	0.00	U	0.00	mg/kg	N/A ^		(0%-30%)	RWS	11/10/00	09:52
Chloride			308		307	mg/kg	0		(0%-30%)			
Fluoride			189		182	mg/kg	3		(0%-30%)			
Sulfate			74000		74400	mg/kg	1		(0%-30%)		11/09/00	17:05
QC1000127228 LCS												
Bromide	99.1				101	mg/kg		102	(80%-120%)		11/09/00	19:00
Chloride	99.1				93.4	mg/kg		94	(80%-120%)			
Fluoride	99.1				104	mg/kg		105	(80%-120%)			
Sulfate	198				190	mg/kg		96	(80%-120%)			
QC1000127227 MB												
Bromide				U	0.00	mg/kg					11/09/00	19:14
Chloride				U	0.00	mg/kg						
Fluoride				U	0.00	mg/kg						
Sulfate				U	0.00	mg/kg						
QC1000127230 32957001 MS												
Bromide	100	U	0.00		149	mg/kg		149*	(70%-130%)		11/10/00	10:07
Chloride	100		308		391	mg/kg		84	(70%-130%)			
Fluoride	100		189		193	mg/kg		4*	(70%-130%)			
Sulfate	200		74000		72400	mg/kg		N/A	(70%-130%)		11/09/00	17:19
Batch 52629												
QC1000127233 32957001 DUP												
Oxalate		U	0.00	U	0.00	mg/kg	N/A ^		(0%-30%)	RWS	11/08/00	19:24
QC1000127232 LCS												
Oxalate	89.3				89.5	mg/kg		100	(80%-120%)		11/08/00	18:44
QC1000127231 MB												

QC Summary

Workorder: 32957

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography Federal												
Batch 52629												
Oxalate				U	0.00	mg/kg						
QC1000127234 32957001 MS												
Oxalate	90.1	U	0.00	U	0.00	mg/kg		0*	(70%-130%)		11/08/00	19:45
Mercury Analysis Federal												
Batch 50427												
QC1000120413 LCS												
Mercury	3130				3160	ug/kg		101	(58%-134%)	AW2	10/25/00	11:46
QC1000120410 MB												
Mercury				U	-5.88	ug/kg					10/25/00	11:41
QC1000120411 32957001 MS												
Mercury	89.3		58.0		149	ug/kg		102	(65%-136%)		10/25/00	11:50
QC1000120414 33026007 MS												
Mercury	101	U	1.59		105	ug/kg		103	(65%-136%)		10/25/00	12:13
QC1000120412 32957001 MSD												
Mercury	95.4		58.0		152	ug/kg	2	98	(0%-17%)		10/25/00	11:51
QC1000120415 33026007 MSD												
Mercury	95.4	U	1.59		108	ug/kg	3	112	(0%-17%)		10/25/00	12:14
Metals Analysis-ICP Federal												
Batch 50462												
QC1000120463 LCS												
Aluminum, total recoverable	7980000				8850000	ug/kg		111	(64%-127%)	RMJ	11/17/00	11:33
Antimony, total recoverable	32300				81100	ug/kg		251*	(46%-171%)			
Arsenic, total recoverable	132000				132000	ug/kg		100	(70%-150%)			
Barium. total recoverable	136000				157000	ug/kg		115	(79%-154%)			
Beryllium, total recoverable	95900				99900	ug/kg		104	(75%-129%)			
Boron, total recoverable	115000				112000	ug/kg		97	(29%-153%)			
Cadmium, total recoverable	117000				117000	ug/kg		100	(78%-122%)			
Calcium, total recoverable	11900000				11800000	ug/kg		99	(79%-150%)			
Chromium, total recoverable	91000				92300	ug/kg		101	(69%-143%)			
Cobalt, total recoverable	114000				114000	ug/kg		100	(75%-138%)			
Copper, total recoverable	121000				129000	ug/kg		106	(79%-139%)			
Iron, total recoverable	11400000				15200000	ug/kg		133	(52%-176%)			
Lead, total recoverable	144000				140000	ug/kg		97	(77%-129%)			
Magnesium, total recoverable	3010000				3080000	ug/kg		102	(65%-126%)			
Manganese, total recoverable	310000				341000	ug/kg		110	(76%-136%)			
Molybdenum	94900				99500	ug/kg		105	(80%-141%)			
Nickel, total recoverable	155000				161000	ug/kg		104	(77%-141%)			
Potassium, total recoverable	3030000				3020000	ug/kg		100	(63%-141%)			
Selenium, total recoverable	88800				81500	ug/kg		92	(78%-127%)			
Silver, total recoverable	119000				122000	ug/kg		102	(75%-125%)			
Sodium, total recoverable	798000				853000	ug/kg		107	(53%-132%)			
Strontium	79800				94400	ug/kg		118	(70%-130%)			
Thallium, total recoverable	142000				143000	ug/kg		101	(56%-149%)			
Tin, total recoverable	101000				100000	ug/kg		99	(70%-130%)			
Titanium	163000				316000	ug/kg		194*	(62%-138%)			
Uranium				U	-4100	ug/kg			(70%-130%)			
Vanadium, total recoverable	76500				86400	ug/kg		113	(80%-127%)			
Zinc, total recoverable	58600				59900	ug/kg		102	(70%-130%)			

QC Summary

Workorder: 32957

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 50462											
QC1000120460 MB											
Aluminum, total recoverable			J	1100	ug/kg					11/17/00	11:27
Antimony, total recoverable			U	84.9	ug/kg						
Arsenic, total recoverable			U	133	ug/kg						
Barium. total recoverable			U	7.98	ug/kg						
Beryllium, total recoverable			U	2.21	ug/kg						
Boron, total recoverable			U	67.2	ug/kg						
Cadmium, total recoverable			U	36.3	ug/kg						
Calcium, total recoverable			U	1410	ug/kg						
Chromium, total recoverable			U	47.9	ug/kg						
Cobalt, total recoverable			U	-90.6	ug/kg						
Copper, total recoverable			U	-73	ug/kg						
Iron, total recoverable			J	3110	ug/kg						
Lead, total recoverable			U	-52.5	ug/kg						
Magnesium, total recoverable			U	347	ug/kg						
Manganese, total recoverable			U	94.9	ug/kg						
Molybdenum			U	45.1	ug/kg						
Nickel, total recoverable			U	121	ug/kg						
Potassium, total recoverable			U	1540	ug/kg						
Selenium, total recoverable			U	-12.1	ug/kg						
Silver, total recoverable			U	-54.9	ug/kg						
Sodium, total recoverable			J	4640	ug/kg						
Strontium			U	1.93	ug/kg						
Thallium, total recoverable			U	-772	ug/kg						
Tin, total recoverable			J	376	ug/kg						
Titanium			U	48.3	ug/kg						
Uranium			U	-1180	ug/kg						
Vanadium, total recoverable			U	24.9	ug/kg						
Zinc, total recoverable			U	117	ug/kg						
QC1000120461 32957001 MS											
Aluminum, total recoverable	227000	13800000		13900000	ug/kg		71	(70%-130%)		11/17/00	11:49
Antimony, total recoverable	22700	1890		14300	ug/kg		55*	(70%-130%)			
Arsenic, total recoverable	22700	1410000		1390000	ug/kg		-99 *	(72%-114%)			
Barium. total recoverable	22700	143000		156000	ug/kg		57*	(66%-127%)			
Beryllium, total recoverable	22700	18600		32800	ug/kg		63*	(75%-119%)			
Boron, total recoverable	22700	277000		283000	ug/kg		26*	(70%-130%)			
Cadmium, total recoverable	22700	6470		20000	ug/kg		59*	(76%-118%)			
Calcium, total recoverable	227000	18100000		17700000	ug/kg		-161 *	(68%-125%)			
Chromium, total recoverable	22700	340000		351000	ug/kg		47*	(74%-122%)			
Cobalt, total recoverable	22700	2020000		1970000	ug/kg		-194 *	(71%-123%)			
Copper, total recoverable	22700	1250000		1240000	ug/kg		-73 *	(73%-124%)			
Iron, total recoverable	227000	77300000		79600000	ug/kg		980*	(70%-130%)		11/17/00	13:22
Lead, total recoverable	22700	678000		667000	ug/kg		-51 *	(71%-123%)		11/17/00	11:49
Magnesium, total recoverable	227000	34500000		34100000	ug/kg		-161 *	(70%-130%)			
Manganese, total recoverable	22700	7920000		8190000	ug/kg		1170*	(70%-130%)		11/17/00	15:00
Molybdenum	22700	420000		424000	ug/kg		N/A	(70%-130%)		11/17/00	11:49
Nickel, total recoverable	22700	2920000		2860000	ug/kg		-267 *	(74%-121%)			
Potassium, total recoverable	227000	24900000		25300000	ug/kg		180*	(65%-130%)		11/17/00	13:22

QC Summary

Workorder: 32957

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 50462											
Selenium, total recoverable	22700	51400		63100	ug/kg		52*	(67%-113%)			
Silver, total recoverable	22700	1180		18100	ug/kg		74*	(76%-124%)			
Sodium, total recoverable	227000	66500000		68400000	ug/kg		839*	(86%-123%)		11/17/00	13:22
Strontium	22700	74900		89100	ug/kg		62*	(70%-130%)		11/17/00	11:49
Thallium, total recoverable	22700	2840		17500	ug/kg		64*	(71%-117%)			
Tin, total recoverable	22700	8860		23900	ug/kg		66*	(70%-130%)			
Titanium	22700	141000		157000	ug/kg		N/A	(70%-130%)			
Uranium	22700	599000		603000	ug/kg		N/A	(70%-130%)			
Vanadium, total recoverable	22700	300000		311000	ug/kg		49*	(67%-130%)			
Zinc, total recoverable	22700	412000		401000	ug/kg		-50 *	(70%-124%)			
QC1000120462 32957001 MSD											
Aluminum, total recoverable	227000	13800000		13700000	ug/kg	2	-30	(0%-20%)		11/17/00	11:55
Antimony, total recoverable	22700	1890		14500	ug/kg	1	55	(0%-28%)			
Arsenic, total recoverable	22700	1410000		1370000	ug/kg	2	-201	(0%-16%)			
Barium. total recoverable	22700	143000		154000	ug/kg	1	47	(0%-23%)			
Beryllium, total recoverable	22700	18600		32700	ug/kg	0	62	(0%-17%)			
Boron, total recoverable	22700	277000		279000	ug/kg	1	11	(0%-20%)			
Cadmium, total recoverable	22700	6470		20100	ug/kg	1	60	(0%-10%)			
Calcium, total recoverable	227000	18100000		17500000	ug/kg	1	-272	(0%-25%)			
Chromium, total recoverable	22700	340000		346000	ug/kg	1	26	(0%-19%)			
Cobalt, total recoverable	22700	2020000		1940000	ug/kg	2	-340	(0%-12%)			
Copper, total recoverable	22700	1250000		1210000	ug/kg	2	-182	(0%-17%)			
Iron, total recoverable	227000	77300000		72900000	ug/kg	9	-1960	(0%-20%)		11/17/00	13:28
Lead, total recoverable	22700	678000		658000	ug/kg	1	-91	(0%-20%)		11/17/00	11:55
Magnesium, total recoverable	227000	34500000		33600000	ug/kg	2	-417	(0%-20%)			
Manganese, total recoverable	22700.	7920000		7950000	ug/kg	3	138	(0%-20%)		11/17/00	15:05
Molybdenum	22700	420000		417000	ug/kg	2	N/A	(0%-20%)		11/17/00	11:55
Nickel, total recoverable	22700	2920000		2820000	ug/kg	1	-431	(0%-14%)			
Potassium, total recoverable	227000	24900000		23400000	ug/kg	8	-658	(0%-26%)		11/17/00	13:28
Selenium, total recoverable	22700	51400		62900	ug/kg	0	51	(0%-17%)		11/17/00	11:55
Silver, total recoverable	22700	1180		17700	ug/kg	2	73	(0%-15%)			
Sodium, total recoverable	227000	66500000		62200000	ug/kg	10	-1890	(0%-11%)		11/17/00	13:28
Strontium	22700	74900		87900	ug/kg	1	57	(0%-20%)		11/17/00	11:55
Thallium, total recoverable	22700	2840		17600	ug/kg	1	65	(0%-10%)			
Tin, total recoverable	22700	8860		23900	ug/kg	0	66	(0%-20%)			
Titanium	22700	141000		155000	ug/kg	1	N/A	(0%-20%)			
Uranium	22700	599000		592000	ug/kg	2	N/A	(0%-20%)			
Vanadium, total recoverable	22700	300000		307000	ug/kg	1	32	(0%-21%)			
Zinc, total recoverable	22700	412000		396000	ug/kg	1	-71	(0%-25%)			
QC1000120464 32957001 SDILT											
Aluminum, total recoverable		139000		38300	ug/L	37.9				11/17/00	11:44
Antimony, total recoverable		19.1	J	2.73	ug/L	28.5					
Arsenic, total recoverable		14300		4190	ug/L	47.1					
Barium. total recoverable		1450		397	ug/L	37					
Beryllium, total recoverable		188		53.3	ug/L	42					
Boron, total recoverable		2800		799	ug/L	42.8					
Cadmium, total recoverable		65.4		18.2	ug/L	38.9					
Calcium, total recoverable		183000		54000	ug/L	47.8					

QC Summary

Workorder: 32957

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 50462											
Chromium, total recoverable		3440		996	ug/L	45					
Cobalt, total recoverable		20400		6020	ug/L	47.6					
Copper, total recoverable		12600		3290	ug/L	30					
Iron, total recoverable		156000		34200	ug/L	9.46				11/17/00	13:17
Lead, total recoverable		6850		2030	ug/L	48.2				11/17/00	11:44
Magnesium, total recoverable		348000		100000	ug/L	43.6					
Manganese, total recoverable		8000		1930	ug/L	20.8				11/17/00	14:54
Molybdenum		4240		1190	ug/L	40.7				11/17/00	11:44
Nickel, total recoverable		29500		9030	ug/L	53					
Potassium, total recoverable		50300		12100	ug/L	20.1				11/17/00	13:17
Selenium, total recoverable		519		158	ug/L	51.9				11/17/00	11:44
Silver, total recoverable		11.9	J	3.13	ug/L	31.9					
Sodium, total recoverable		134000		26300	ug/L	1.89				11/17/00	13:17
Strontium		757		210	ug/L	38.7				11/17/00	11:44
Thallium, total recoverable		28.7		16.6	ug/L	190					
Tin, total recoverable		89.4		26.5	ug/L	47.9					
Titanium		1420		397	ug/L	39.5					
Uranium		6050		1630	ug/L	34.6					
Vanadium, total recoverable		3030		855	ug/L	41.1					
Zinc, total recoverable		4170		1300	ug/L	55.7					
Rad Gamma Spec											
Batch 52273											
QC1000126506 33060001 DUP											
Actinium-227			U	0.0454 +/-0.239	pCi/g	N/A			SRB	11/12/00	11:35
Actinium-228			U	0.0101 +/-0.159	pCi/g	N/A					
Antimony-124			U	-0.00796 +/-0.0341	pCi/g	N/A					
Antimony-125	U	0.0424 +/-0.0613	U	0.0202 +/-0.0593	pCi/g	71 ^					
Barium-133			U	-0.0377 +/-0.0332	pCi/g	N/A					
Californium-249	U	0.00498 +/-0.0238	U	0.0043 +/-0.0243	pCi/g	15 ^					
Californium-251	U	0.0177 +/-0.0919	U	-0.0429 +/-0.0748	pCi/g	N/A ^					
Cerium-141			U	0.0117 +/-0.0571	pCi/g	N/A					
Cerium-144	U	0.0306 +/-0.129	U	-0.00348 +/-0.132	pCi/g	N/A ^					
Cesium-134			U	-0.00256 +/-0.0233	pCi/g	N/A					
Cesium-135			U	-0.00143 +/-0.0915	pCi/g	N/A					
Cesium-137	U	-0.0128 +/-0.0267	R4	0.0657 +/-0.0335	pCi/g	N/A		(0%-20%)			

QC Summary

Workorder: 32957

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 52273											
Cobalt-57			U	0.00123 +/-0.0163	pCi/g	N/A					
Cobalt-58			U	-0.0296 +/-0.027	pCi/g	N/A					
Cobalt-60	U	0.023 +/-0.034	U	0.0174 +/-0.0244	pCi/g	28 ^					
Europium-152			U	0.0228 +/-0.0589	pCi/g	N/A					
Europium-154			U	0.0613 +/-0.145	pCi/g	N/A					
Lead-212			U	0.021 +/-0.066	pCi/g	N/A					
Manganese-54			U	-0.0175 +/-0.0252	pCi/g	N/A					
Neptunium-239			U	-0.0696 +/-0.120	pCi/g	N/A					
Niobium-94			U	-0.0215 +/-0.0218	pCi/g	N/A					
Potassium-40			U	0.116 +/-0.347	pCi/g	N/A					
Promethium-144			U	-0.000682 +/-0.0219	pCi/g	N/A					
Promethium-146			U	0.0127 +/-0.0274	pCi/g	N/A					
Radium-226			U	0.0292 +/-0.0492	pCi/g	N/A					
Radium-228			U	0.0101 +/-0.159	pCi/g	N/A					
Ruthenium-103	U	0.00438 +/-0.0303	U	-0.0263 +/-0.0331	pCi/g	N/A ^					
Ruthenium-106	U	0.113 +/-0.205	U	-0.0227 +/-0.211	pCi/g	N/A ^					
Sodium-22			U	0.0222 +/-0.0522	pCi/g	N/A					
Tin-113			U	0.0343 +/-0.0308	pCi/g	N/A					
Tin-126	U	0.0258 +/-0.0396	U	0.0519 +/-0.0451	pCi/g	67 ^					
Yttrium-88			U	0.0106 +/-0.0267	pCi/g	N/A					
Zinc-65			U	-0.0482 +/-0.0506	pCi/g	N/A					
Zirconium-95			U	0.0379 +/-0.0515	pCi/g	N/A					
QC1000126507 LCS											
Actinium-227			U	0.229 +/-6.14	pCi/g					11/08/00	18:37
Actinium-228			U	5.19	pCi/g						

QC Summary

Workorder: 32957

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 52273											
				+/-4.82							
Antimony-124			U	-9.180E+07 +/-1.310E+08	pCi/g						
Antimony-125			U	-0.859 +/-5.35	pCi/g						
Barium-133			U	0.0907 +/-1.07	pCi/g						
Californium-249			U	-0.495 +/-0.675	pCi/g						
Californium-251			U	-0.15 +/-1.42	pCi/g						
Cerium-141			U	7.480E+14 +/-1.840E+15	pCi/g						
Cerium-144			U	-19.1 +/-146	pCi/g						
Cesium-134			U	0.0897 +/-2.40	pCi/g						
Cesium-135			U	1.79 +/-2.38	pCi/g						
Cesium-137	441			458 +/-3.07	pCi/g		104	(75%-125%)			
Cobalt-57				389 +/-34.5	pCi/g						
Cobalt-58			U	-1.160E+05 +/-8.680E+06	pCi/g						
Cobalt-60				687 +/-5.37	pCi/g						
Europium-152			U	-1.52 +/-1.89	pCi/g						
Europium-154			U	-0.0429 +/-1.35	pCi/g						
Lead-212			U	0.943 +/-3.88	pCi/g						
Manganese-54			U	16.3 +/-26.7	pCi/g						
Neptunium-239			U	-0.627 +/-2.31	pCi/g						
Niobium-94			U	-0.0545 +/-0.523	pCi/g						
Potassium-40			U	1.62 +/-1.92	pCi/g						
Promethium-144			U	-2.27 +/-12.8	pCi/g						
Promethium-146			U	0.208 +/-1.54	pCi/g						
Radium-226			U	1.20 +/-1.08	pCi/g						

QC Summary

Workorder: 32957

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 52273											
Radium-228			U	5.19 +/-4.82	pCi/g						
Ruthenium-103			U	-1.670E+12 +/-4.130E+12	pCi/g						
Ruthenium-106			U	-52 +/-124	pCi/g						
Sodium-22			U	-0.0488 +/-1.14	pCi/g						
Tin-113			U	4220 +/-17300	pCi/g						
Tin-126				116 +/-1.99	pCi/g						
Yttrium-88			U	-5330 +/-10900	pCi/g						
Zinc-65			U	118 +/-180	pCi/g						
Zirconium-95			U	-2.800E+07 +/-8.090E+07	pCi/g						
QC1000126505 MB											
Actinium-227			U	-0.0193 +/-0.186	pCi/g					11/13/00	08:48
Actinium-228			U	0.064 +/-0.184	pCi/g						
Antimony-124			U	-0.00484 +/-0.0195	pCi/g						
Antimony-125			U	0.0178 +/-0.044	pCi/g						
Barium-133			U	-0.0087 +/-0.0211	pCi/g						
Californium-249			U	-0.00122 +/-0.0211	pCi/g						
Californium-251			U	-0.0169 +/-0.0569	pCi/g						
Cerium-141			U	-0.0045 +/-0.0222	pCi/g						
Cerium-144			U	-0.0124 +/-0.0819	pCi/g						
Cesium-134			U	0.0095 +/-0.0198	pCi/g						
Cesium-135			U	-0.0409 +/-0.074	pCi/g						
Cesium-137			U	0.000736 +/-0.0172	pCi/g						
Cobalt-57			U	-0.0041 +/-0.00996	pCi/g						
Cobalt-58			U	-0.00286 +/-0.0171	pCi/g						
Cobalt-60			U	0.0161	pCi/g						

QC Summary

Workorder: 32957

Rad Gamma Spec

Batch 52273

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
				+/-0.0202							
Europium-152			U	0.00648 +/-0.0441	pCi/g						
Europium-154			U	-0.00677 +/-0.0553	pCi/g						
Lead-212			U	0.0299 +/-0.0375	pCi/g						
Manganese-54			U	0.0188 +/-0.0209	pCi/g						
Neptunium-239			U	-0.00351 +/-0.0762	pCi/g						
Niobium-94			U	0.00508 +/-0.0151	pCi/g						
Potassium-40			U	0.133 +/-0.305	pCi/g						
Promethium-144			U	0.00557 +/-0.025	pCi/g						
Promethium-146			U	-0.0146 +/-0.0195	pCi/g						
Radium-226			U	0.0204 +/-0.0606	pCi/g						
Radium-228			U	0.064 +/-0.184	pCi/g						
Ruthenium-103			U	0.00396 +/-0.0158	pCi/g						
Ruthenium-106			U	-0.027 +/-0.137	pCi/g						
Sodium-22			U	-0.00256 +/-0.0197	pCi/g						
Tin-113			U	-0.00513 +/-0.0216	pCi/g						
Tin-126			U	0.00912 +/-0.0285	pCi/g						
Yttrium-88			U	-0.0083 +/-0.0209	pCi/g						
Zinc-65			U	-0.0232 +/-0.0353	pCi/g						
Zirconium-95			U	-0.00614 +/-0.0304	pCi/g						

Notes:

The Qualifiers in this report are defined as follows:

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result

QC Summary

Workorder: 32957

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

U EPA Functional Guideline Code:Result < MDL

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

QC Summary

Report Date: November 22, 2000
Page 1 of 5

Client : Westinghouse Savannah Rivr Co.
Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: Ms. Janet Crawford

Workorder: 33055

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Mercury Analysis Federal												
Batch 51662												
QC1000123142 LCS												
Mercury	0.020				0.0182	mg/L		91	(82%-124%)	AW2	11/03/00	12:21
QC1000123161 LCSD												
Mercury	0.020				0.019	mg/L	4	95	(0%-16%)		11/03/00	12:23
QC1000123141 MB												
Mercury				U	-0.000141	mg/L					11/03/00	12:15
QC1000123139 33055009 MS												
Mercury	0.020	U	0.000525		0.0207	mg/L		101	(74%-132%)		11/03/00	12:48
QC1000123140 33055009 MSD												
Mercury	0.020	U	0.000525		0.0207	mg/L	0	101	(0%-16%)		11/03/00	12:50
QC1000121676 TB												
Mercury				U	-0.000277	mg/L					11/03/00	12:19
QC1000122008 TB												
Mercury				U	-0.000279	mg/L					11/03/00	12:17
Metals Analysis-ICP Federal												
Batch 51690												
QC1000123122 32877005 DUP												
Antimony, total recoverable				U	-0.0252	mg/L	N/A		(0%-5%)	RMJ	11/19/00	13:24
Arsenic, total recoverable			0.0554		0.0708	mg/L	24*		(0%-6%)			
Barium. total recoverable			0.327		0.328	mg/L	1		(0%-8%)			
Beryllium, total recoverable				U	0.00459	mg/L	N/A		(0%-12%)			
Cadmium, total recoverable		J	0.0299	J	0.0307	mg/L	N/A		(0%-7%)			
Chromium, total recoverable			13.2		13.2	mg/L	0		(0%-15%)			
Lead, total recoverable		J	0.0188	J	0.0225	mg/L	N/A		(0%-14%)			
Nickel, total recoverable					3.03	mg/L	N/A		(0%-11%)			
Selenium, total recoverable			0.726		0.716	mg/L	1		(0%-11%)			
Silver, total recoverable		U	0.002	U	0.00236	mg/L	N/A ^		(0%-17%)			
Thallium, total recoverable				J	0.0637	mg/L	N/A		(0%-5%)			
Vanadium, total recoverable				J	0.0488	mg/L	N/A		(0%-20%)			
Zinc, total recoverable		U	-0.0576	U	-0.055	mg/L	N/A ^		(0%-20%)	MNC	11/20/00	12:52
QC1000123124 LCS												
Antimony, total recoverable	2.00				1.99	mg/L		99	(80%-116%)	RMJ	11/19/00	12:56
Arsenic, total recoverable	5.00				4.91	mg/L		98	(80%-117%)			
Barium. total recoverable	10.0				10.1	mg/L		101	(87%-116%)			
Beryllium, total recoverable	2.00				1.94	mg/L		97	(89%-116%)			
Cadmium, total recoverable	1.00				0.984	mg/L		98	(88%-117%)			
Chromium, total recoverable	5.00				4.99	mg/L		100	(88%-117%)			
Lead, total recoverable	5.00				4.93	mg/L		99	(89%-117%)			
Nickel, total recoverable	2.00				1.97	mg/L		99	(88%-119%)			
Selenium, total recoverable	1.00				0.985	mg/L		99	(87%-114%)			
Silver, total recoverable	0.500				0.498	mg/L		100	(80%-119%)			
Thallium, total recoverable	2.00				1.93	mg/L		97	(90%-118%)			
Vanadium, total recoverable	2.00				2.02	mg/L		101	(89%-115%)			

QC Summary

Workorder: 33055

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP Federal											
Batch 51690											
Zinc, total recoverable	2.00				1.92	mg/L		96	(89%-117%)		
QC1000123160 LCSD											
Antimony, total recoverable	2.00				1.79	mg/L	10	90	(0%-20%)		11/19/00 13:02
Arsenic, total recoverable	5.00				4.37	mg/L	12	88	(0%-20%)		
Barium. total recoverable	10.0				8.98	mg/L	12	90	(0%-20%)		
Beryllium, total recoverable	2.00				1.73	mg/L	11	87	(0%-20%)		
Cadmium, total recoverable	1.00				0.883	mg/L	11	88	(0%-20%)		
Chromium, total recoverable	5.00				4.46	mg/L	11	89	(0%-20%)		
Lead, total recoverable	5.00				4.39	mg/L	12	88	(0%-20%)		
Nickel, total recoverable	2.00				1.76	mg/L	12	88	(0%-20%)		
Selenium, total recoverable	1.00				0.877	mg/L	12	88	(0%-20%)		
Silver, total recoverable	0.500				0.448	mg/L	11	90	(0%-20%)		
Thallium, total recoverable	2.00				1.72	mg/L	12	86	(0%-20%)		
Vanadium, total recoverable	2.00				1.81	mg/L	11	91	(0%-20%)		
Zinc, total recoverable	2.00				1.71	mg/L	12	85	(0%-20%)		
QC1000123123 MB											
Antimony, total recoverable				U	-0.00202	mg/L					11/19/00 12:40
Arsenic, total recoverable				U	0.0123	mg/L					
Barium. total recoverable				U	0.000218	mg/L					
Beryllium, total recoverable				U	-0.000033	mg/L					
Cadmium, total recoverable				U	0.0013	mg/L					
Chromium, total recoverable				U	0.000469	mg/L					
Lead, total recoverable				U	-0.000653	mg/L					
Nickel, total recoverable				U	0.00203	mg/L					
Selenium, total recoverable				U	0.000882	mg/L					
Silver, total recoverable				U	0.000673	mg/L					
Thallium, total recoverable				U	0.0143	mg/L					
Vanadium, total recoverable				U	0.000002	mg/L					
Zinc, total recoverable				U	0.00221	mg/L					
QC1000123119 32877005 MS											
Antimony, total recoverable	2.00				2.02	mg/L		101	(76%-124%)		11/19/00 13:30
Arsenic, total recoverable	5.00		0.0554		5.00	mg/L		99	(85%-118%)		
Barium. total recoverable	10.0		0.327		1.03	mg/L		7*	(90%-113%)		
Beryllium, total recoverable	2.00				1.86	mg/L		93	(88%-116%)		
Cadmium, total recoverable	1.00	J	0.0299		0.955	mg/L		93	(89%-116%)		
Chromium, total recoverable	5.00		13.2		18.1	mg/L		98	(88%-112%)		
Lead, total recoverable	5.00	J	0.0188		3.87	mg/L		77*	(85%-118%)		
Nickel, total recoverable	2.00				4.91	mg/L		95	(90%-118%)		
Selenium, total recoverable	1.00		0.726		1.72	mg/L		99	(84%-112%)		
Silver, total recoverable	0.500	U	0.002		0.514	mg/L		102	(89%-120%)		
Thallium, total recoverable	2.00				1.98	mg/L		96	(87%-115%)		
Vanadium, total recoverable	2.00				2.03	mg/L		99	(89%-114%)		
Zinc, total recoverable	2.00	U	-0.0576		1.94	mg/L		97	(91%-114%)	MNC	11/20/00 12:58
QC1000123125 33055009 MS											
Antimony, total recoverable	2.00	U	-0.0324		2.06	mg/L		103	(76%-124%)	RMJ	11/19/00 14:58
Arsenic, total recoverable	5.00	J	0.0354		5.03	mg/L		100	(85%-118%)		
Barium. total recoverable	10.0	J	0.351		1.09	mg/L		7*	(90%-113%)		
Beryllium, total recoverable	2.00	U	0.0041		1.88	mg/L		94	(88%-116%)		

QC Summary

Workorder: 33055

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP Federal											
Batch 51690											
Cadmium, total recoverable	1.00	J	0.0315		0.968	mg/L		94	(89%-116%)		
Chromium, total recoverable	5.00		9.69		14.6	mg/L		98	(88%-112%)		
Lead, total recoverable	5.00	U	0.00479		3.92	mg/L		78*	(85%-118%)		
Nickel, total recoverable	2.00		14.0		16.0	mg/L		99	(90%-118%)		
Selenium, total recoverable	1.00		0.775		1.80	mg/L		103	(84%-112%)		
Silver, total recoverable	0.500	U	0.00123		0.522	mg/L		104	(89%-120%)		
Thallium, total recoverable	2.00	J	0.0721		1.99	mg/L		96	(87%-115%)		
Vanadium, total recoverable	2.00	J	0.0177		2.05	mg/L		102	(89%-114%)		
Zinc, total recoverable	2.00	U	0.0352		1.94	mg/L		95	(91%-114%)		
QC1000123120 32877005 MSD											
Antimony, total recoverable	2.00				2.07	mg/L	3	104	(0%-7%)		11/19/00 13:46
Arsenic, total recoverable	5.00		0.0554		5.11	mg/L	2	101	(0%-7%)		
Barium. total recoverable	10.0		0.327		1.06	mg/L	2	7	(0%-6%)		
Beryllium, total recoverable	2.00				1.89	mg/L	2	95	(0%-7%)		
Cadmium, total recoverable	1.00	J	0.0299		0.971	mg/L	2	94	(0%-7%)		
Chromium, total recoverable	5.00		13.2		18.5	mg/L	2	106	(0%-7%)		
Lead, total recoverable	5.00	J	0.0188		3.97	mg/L	2	79	(0%-7%)		
Nickel, total recoverable	2.00				5.00	mg/L	2	99	(0%-6%)		
Selenium, total recoverable	1.00		0.726		1.75	mg/L	2	103	(0%-7%)		
Silver, total recoverable	0.500	U	0.002		0.523	mg/L	2	104	(0%-7%)		
Thallium, total recoverable	2.00				2.01	mg/L	2	98	(0%-8%)		
Vanadium, total recoverable	2.00				2.08	mg/L	2	102	(0%-7%)		
Zinc, total recoverable	2.00	U	-0.0576		1.95	mg/L	0	97	(0%-8%)	MNC	11/20/00 13:03
QC1000123126 33055009 MSD											
Antimony, total recoverable	2.00	U	-0.0324		2.05	mg/L	1	102	(0%-7%)	RMJ	11/19/00 15:04
Arsenic, total recoverable	5.00	J	0.0354		5.04	mg/L	0	100	(0%-7%)		
Barium. total recoverable	10.0	J	0.351		1.17	mg/L	6	8	(0%-6%)		
Beryllium, total recoverable	2.00	U	0.0041		1.88	mg/L	0	94	(0%-7%)		
Cadmium, total recoverable	1.00	J	0.0315		0.967	mg/L	0	94	(0%-7%)		
Chromium, total recoverable	5.00		9.69		14.6	mg/L	0	99	(0%-7%)		
Lead, total recoverable	5.00	U	0.00479		3.93	mg/L	0	78	(0%-7%)		
Nickel, total recoverable	2.00		14.0		16.0	mg/L	0	100	(0%-6%)		
Selenium, total recoverable	1.00		0.775		1.79	mg/L	1	101	(0%-7%)		
Silver, total recoverable	0.500	U	0.00123		0.519	mg/L	1	104	(0%-7%)		
Thallium, total recoverable	2.00	J	0.0721		2.03	mg/L	2	98	(0%-8%)		
Vanadium, total recoverable	2.00	J	0.0177		2.05	mg/L	0	102	(0%-7%)		
Zinc, total recoverable	2.00	U	0.0352		1.95	mg/L	0	96	(0%-8%)		
QC1000123121 32877005 SDILT											
Antimony, total recoverable				U	-0.404	ug/L	N/A				11/19/00 13:19
Arsenic, total recoverable			5.54	U	1.49	ug/L	34.6				
Barium. total recoverable			32.7		6.67	ug/L	2.08				
Beryllium, total recoverable				U	0.0455	ug/L	N/A				
Cadmium, total recoverable		J	2.99	J	0.659	ug/L	10.4				
Chromium, total recoverable			1320		279	ug/L	5.71				
Lead, total recoverable		J	1.88	U	1.55	ug/L	312				
Nickel, total recoverable					64.1	ug/L	N/A				
Selenium, total recoverable			72.6		14.6	ug/L	.437				
Silver, total recoverable		U	0.200	U	0.288	ug/L	620				

QC Summary

Workorder: 33055

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 51690											
Thallium, total recoverable			U	2.85	ug/L	N/A					
Vanadium, total recoverable			J	1.19	ug/L	N/A					
Zinc, total recoverable	U	-2.88	U	1.06	ug/L	-284			MNC	11/20/00	12:46
QC1000123127 33055009 SDILT											
Antimony, total recoverable	U	-3.24	U	-0.227	ug/L	-64.9			RMJ	11/19/00	14:52
Arsenic, total recoverable	J	3.54	U	1.43	ug/L	103					
Barium. total recoverable	J	35.1		6.95	ug/L	.871					
Beryllium, total recoverable	U	0.410	U	0.0661	ug/L	19.4					
Cadmium, total recoverable	J	3.15	J	0.767	ug/L	21.6					
Chromium, total recoverable		969		199	ug/L	2.59					
Lead, total recoverable	U	0.479	U	1.08	ug/L	1020					
Nickel, total recoverable		1400		290	ug/L	3.82					
Selenium, total recoverable		77.5		15.0	ug/L	3.22					
Silver, total recoverable	U	0.123	U	0.159	ug/L	545					
Thallium, total recoverable	J	7.21	U	1.24	ug/L	14.1					
Vanadium, total recoverable	J	1.77	U	0.501	ug/L	41.3					
Zinc, total recoverable	U	3.52	U	0.883	ug/L	25.4					
QC1000121676 TB											
Antimony, total recoverable			U	0.00285	mg/L					11/19/00	12:45
Arsenic, total recoverable			U	0.00564	mg/L						
Barium. total recoverable			U	0.00139	mg/L						
Beryllium, total recoverable			U	-0.000281	mg/L						
Cadmium, total recoverable			U	0.00215	mg/L						
Chromium, total recoverable			U	0.00403	mg/L						
Lead, total recoverable			U	0.0177	mg/L						
Nickel, total recoverable			U	0.00785	mg/L						
Selenium, total recoverable			U	-0.00584	mg/L						
Silver, total recoverable			U	0.00162	mg/L						
Thallium, total recoverable			U	0.0137	mg/L						
Vanadium, total recoverable			U	0.000688	mg/L						
Zinc, total recoverable			U	0.00332	mg/L						
QC1000122008 TB											
Antimony, total recoverable			U	-0.0135	mg/L					11/19/00	12:51
Arsenic, total recoverable			U	0.0165	mg/L						
Barium. total recoverable			U	0.00152	mg/L						
Beryllium, total recoverable			U	-0.00019	mg/L						
Cadmium, total recoverable			U	0.000267	mg/L						
Chromium, total recoverable			U	0.00122	mg/L						
Lead, total recoverable			U	0.0107	mg/L						
Nickel, total recoverable			U	-0.00241	mg/L						
Selenium, total recoverable			U	-0.00368	mg/L						
Silver, total recoverable			U	0.000561	mg/L						
Thallium, total recoverable			U	0.00693	mg/L						
Vanadium, total recoverable			U	0.000017	mg/L						
Zinc, total recoverable			U	0.00565	mg/L						

Notes:
The Qualifiers in this report are defined as follows:

QC Summary

Workorder: 33055

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	AGTOT	199	495		1180	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	ALTOT	762	4950	V	13800000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	ASTOT	258	495		1410000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	BATOT	92.0	495		143000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	BETOT	61.6	495		18600	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	BTOT	612	4950		277000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	CATOT	2380	9900		18100000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	CDTOT	75.5	495		6470	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	COTOT	110	495		2020000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	CRTOT	128	495		340000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	CUTOT	198	495		1250000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	MGTOT	364	1980		34500000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	MOTOT	168	990		420000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	NITOT	143	495		2920000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	PBTOT	196	495		678000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	SBTOT	161	990		1890	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	SETOT	288	495		51400	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	SNTOT	286	990	V	8860	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	SRTOT	51.6	495		74900	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	TITOT	66.5	495		141000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	TLTOT	396	990		2840	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	UTOT	1740	4950		599000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	VTOT	147	495		300000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1138	EPA6010B	50200	GE	32957001	ZNTOT	272	495		412000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1311	EPA6010B	50200	GE	32957001	FETOT	3960	24800		77300000	UGKG		0.00	W	10.0	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1311	EPA6010B	50200	GE	32957001	KTOT	22700	49500		24900000	UGKG		0.00	W	10.0	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1311	EPA6010B	50200	GE	32957001	NATOT	3020	49500	V	66500000	UGKG		0.00	W	10.0	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1449	EPA6010B	50200	GE	32957001	MNTOT	1750	9900		7920000	UGKG		0.00	W	20.0	TRACE2	50462	RMJ	100		10	49.5	AB93796N
689-1-T	101200	0000	101900	102400	1800	N	103000	1745	EPA300.0	50188	GE	32957001	NO2	1.97	4.93		11.3	MGKG		0.00	W	10.0	IC1	50370	HSC	100	32957001.0	10	9.85	AB93796N
689-1-T	101200	0000	101900	102400	1800	N	103000	1745	EPA300.0	50188	GE	32957001	OPO4	3.94	9.85		37.1	MGKG		0.00	W	10.0	IC1	50370	HSC	100	32957001.0	10	9.85	AB93796N
689-1-T	101200	0000	101900	102400	1800	N	103000	2150	EPA300.0	50188	GE	32957001	NO3	197	493		38300	MGKG		0.00	W	1000	IC1	50370	HSC	100	32957001.0	10	9.85	AB93796N
689-1-T	101200	0000	101900	102400	1900	EPA7471A	102500	1148	EPA7471A	50190	GE	32957001	HGTOT	3.98	8.75		58.0	UGKG		0.00	W	1.00	MER179	50427	AW2	100	32957001.0	10	43.7	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	AC228	2.55	8.25		102	PCG	2.85	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	AC227	7.34	20.56		435	PCG	6.61	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	BA133	0.808	1.784		0.871	PCG	0.488	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CA249	0.782	1.898		5.07	PCG	0.558	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CA251	2.63	5.93	U	-0.145	PCG	1.65	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CE141	2.36	6.62		138	PCG	2.13	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CE144	4.29	9.37	U	2.20	PCG	2.54	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CO57	0.500	1.484		6.67	PCG	0.492	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CO58	0.836	2.54	U	0.440	PCG	0.852	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CO60	0.721	1.791	U	-0.685	PCG	0.535	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CS134	0.569	1.647		0.947	PCG	0.539	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CS135	2.83	12.61		605	PCG	4.89	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	CS137	0.658	1.594		0.676	PCG	0.468	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	EU152	1.90	4.58		7.20	PCG	1.34	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	EU154	2.10	5.2	U	1.77	PCG	1.55	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	K40	7.47	23.65		35.0	PCG	8.09	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	MN54	0.697	1.753		1.55	PCG	0.528	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	NA22	0.740	1.86	U	0.639	PCG	0.560	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	NB94	0.713	1.975		6.70	PCG	0.631	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	NP239	3.54	8.36		6.75	PCG	2.41	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	PB212	1.07	3.21		107	PCG	1.07	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	PM144	0.611	1.625	U	0.607	PCG	0.507	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	PM146	0.885	2.483		4.45	PCG	0.799	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	RA226	1.17	7.57		995	PCG	3.20	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	RA228	2.55	8.25		102	PCG	2.85	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	RU103	0.962	2.158	U	-0.412	PCG	0.598	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	RU106	5.67	12.73	U	3.48	PCG	3.53	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	SB124	0.837	2.355		1.33	PCG	0.759	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	SB125	2.26	5.88		26.4	PCG	1.81	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	SN113	0.976	2.332	U	-0.391	PCG	0.678	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	SN126	1.42	3.72		104	PCG	1.15	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	Y88	0.751	2.445		4.72	PCG	0.847	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	ZN65	2.08	4.6		22.1	PCG	1.26	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957001	ZR95	1.56	3.78		2.37	PCG	1.11	0.00	D	1	GAMMA13	52273	SRB	100	32957001.0	10	1.00	AB93796N
689-1-T	101200	0000	101900	110800	1314	N	110800	1904	EPA300.0	52579	GE	32957001	OXALATE	1.13	6.00	U	6.00	MGKG		0.00	W	1.00	IC1	52629	RWS	100	32957001.0	10	10.0	AB93796N
689-1-T	101200	0000	101900	110800	1314	N	110900	1650	EPA300.0	52578	GE	32957001	SO4	790	2000		74000	MGKG		0.00	W	1000	IC1	52615	RWS	100	32957001.0	10	10.0	AB93796N
689-1-T	101200	0000	101900	110800	1314	N	111000	0938	EPA300.0	52578	GE	32957001	BR	4.00	12.5	U	12.5	MGKG		0.00	W	25.0	IC1	52615	RWS	100	32957001.0	10	10.0	AB93796N
689-1-T	101200	0000	101900	110800	1314	N	111000	0938	EPA300.0	52578	GE	32957001	CL	6.50	25.0		308	MGKG		0.00	W	25.0	IC1	52615	RWS	100	32957001.0	10	10.0	AB93796N
689-1-T	101200	0000	101900	110800	1314	N	111000	0938	EPA300.0	52578	GE	32957001	F	4.25	12.5		189	MGKG		0.00	W	25.0	IC1	52615	RWS	100	32957001.0	10	10.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	AGTOT	197	490		1130	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	ALTOT	755	4900	V	13200000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	ASTOT	256	490		1360000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	BATOT	91.1	490		135000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	BETOT	61.0	490		17600	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	BTOT	804	4900		263000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	CATOT	2350	9800		17500000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	CDTOT	74.8	490		6030	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	COTOT	109	490		1840000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	CRTOT	126	490		323000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	CUTOT	196	490		1160000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	FETOT	784	4900	V	48200000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	MGTOT	361	1960		32700000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	MOTOT	167	980		388000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	NITOT	141	490		2680000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	PBTOT	194	490		647000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	SBTOT	160	980		1570	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	SETOT	285	490		47000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	SNTOT	283	980	V	8410	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	SRTOT	51.1	490		70400	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	TITOT	65.9	490		134000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	TLTOT	392	980		3100	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	UTOT	1730	4900		560000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	VTOT	145	490		288000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1200	EPA6010B	50200	GE	32957002	ZNTOT	270	490		393000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1333	EPA6010B	50200	GE	32957002	KTOT	22500	49000		21500000	UGKG		0.00	W	10.0	TRACE2	50462	RMJ	100		10	49.0	AB93796N

689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1333	EPA6010B	50200	GE	32957002	NATOT	3000	49000		V	53500000	UGKG		0.00	W	10.0	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1700	EPA3050B	111700	1511	EPA6010B	50200	GE	32957002	MNTOT	1740	9800			7510000	UGKG		0.00	W	20.0	TRACE2	50462	RMJ	100		10	49.0	AB93796N
689-1-B	101200	0000	101900	102400	1800	N	103000	1828	EPA300.0	50188	GE	32957002	NO2	1.97	4.93			13.7	MGKG		0.00	W	10.0	IC1	50370	HSC	100	32957002.0	10	9.85	AB93796N
689-1-B	101200	0000	101900	102400	1800	N	103000	1828	EPA300.0	50188	GE	32957002	OPO4	3.94	9.85			104	MGKG		0.00	W	10.0	IC1	50370	HSC	100	32957002.0	10	9.85	AB93796N
689-1-B	101200	0000	101900	102400	1800	N	103000	2233	EPA300.0	50188	GE	32957002	NO3	197	493			38600	MGKG		0.00	W	1000	IC1	50370	HSC	100	32957002.0	10	9.85	AB93796N
689-1-B	101200	0000	101900	102400	1900	EPA7471A	102500	1153	EPA7471A	50190	GE	32957002	HGTOT	4.28	9.40			51.8	UGKG		0.00	W	1.00	MER179	50427	AW2	100	32957002.0	10	47.0	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	AC228	1.67	6.09			95.4	PCG	2.21	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	AC227	6.13	17.71			425	PCG	5.79	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	BA133	0.618	1.428			0.750	PCG	0.405	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CA249	0.561	1.515			4.59	PCG	0.477	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CA251	2.24	5.12	U		-1.15	PCG	1.44	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CE141	1.97	5.79			125	PCG	1.91	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CE144	3.78	8.72	U		3.41	PCG	2.47	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CO57	0.464	1.556			5.63	PCG	0.546	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CO58	0.549	1.691	U		-0.0645	PCG	0.571	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CO60	0.497	1.229	U		-0.373	PCG	0.366	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CS134	0.487	1.109			5.78	PCG	0.311	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CS135	2.34	10.5			585	PCG	4.08	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	CS137	0.454	1.092			1.22	PCG	0.319	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	EU152	1.49	3.53			5.15	PCG	1.02	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	EU154	1.47	3.93			2.97	PCG	1.23	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	K40	5.08	16.06			35.0	PCG	5.49	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	MN54	0.462	1.21			1.71	PCG	0.374	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	NA22	0.516	1.406	J	I	1.07	PCG	0.445	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	NB94	0.481	1.439			5.87	PCG	0.479	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	NP239	3.32	7.62			5.23	PCG	2.15	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	PB212	0.895	2.869			104	PCG	0.987	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	PM144	0.405	1.169			0.627	PCG	0.382	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	PM146	0.628	1.892			4.13	PCG	0.632	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	RA226	0.821	5.781			877	PCG	2.48	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	RA228	1.67	6.09			95.4	PCG	2.21	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	RU103	0.667	1.507	U		-0.631	PCG	0.420	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	RU106	3.92	9.26	U		1.27	PCG	2.67	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	SB124	0.558	1.684	U		-0.0589	PCG	0.563	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	SB125	1.60	4.12			22.6	PCG	1.26	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	SN113	0.703	1.695	U		-0.49	PCG	0.496	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	SN126	1.87	4.71			65.5	PCG	1.42	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	Y88	0.429	1.415			4.25	PCG	0.493	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	ZN65	1.61	3.422			31.8	PCG	0.906	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110300	1812	N	111300	0843	EPIA-013B	50652	GP	32957002	ZR95	1.01	2.226			1.82	PCG	0.608	0.00	D	1	GAMMA18	52273	SRB	100	32957002.0	10	1.00	AB93796N
689-1-B	101200	0000	101900	110800	1314	N	110800	2005	EPA300.0	52579	GE	32957002	OXALATE	1.13	6.00	U		6.00	MGKG		0.00	W	1.00	IC1	52629	RWS	100	32957002.0	10	10.0	AB93796N
689-1-B	101200	0000	101900	110800	1314	N	110900	1733	EPA300.0	52578	GE	32957002	SO4	790	2000			71700	MGKG		0.00	W	1000	IC1	52615	RWS	100	32957002.0	10	10.0	AB93796N
689-1-B	101200	0000	101900	110800	1314	N	111000	1021	EPA300.0	52578	GE	32957002	BR	4.00	12.5	U		12.5	MGKG		0.00	W	25.0	IC1	52615	RWS	100	32957002.0	10	10.0	AB93796N
689-1-B	101200	0000	101900	110800	1314	N	111000	1021	EPA300.0	52578	GE	32957002	CL	6.60	25.0			172	MGKG		0.00	W	25.0	IC1	52615	RWS	100	32957002.0	10	10.0	AB93796N
689-1-B	101200	0000	101900	110800	1314	N	111000	1021	EPA300.0	52578	GE	32957002	F	4.25	12.5			94.0	MGKG		0.00	W	25.0	IC1	52615	RWS	100	32957002.0	10	10.0	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	AGTOT	193	481			1070	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	ALTOT	740	4810		V	13100000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	ASTOT	251	481			1320000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	BATOT	89.3	481			135000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	BETOT	59.8	481			17600	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	BTOT	788	4810			257000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	CATOT	2310	9620			17100000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	CDTOT	73.4	481			6120	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	COTOT	107	481			1890000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	CRTOT	124	481			325000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	CUTOT	192	481			1160000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	FETOT	769	4810		V	48100000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	MGTOT	354	1920			32700000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	MOTOT	163	962			396000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	NITOT	138	481			2770000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	PBTOT	190	481			633000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	SBTOT	157	962			1450	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	SETOT	280	481			47500	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	SNTOT	278	962		V	8650	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	SRTOT	50.1	481			70300	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	TITOT	64.6	481			134000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	TLTOT	385	962			2860	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	UTOT	1690	4810			560000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	VTOT	142	481			283000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1217	EPA6010B	50200	GE	32957003	ZNTOT	264	481			386000	UGKG		0.00	W	2.00	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1339	EPA6010B	50200	GE	32957003	KTOT	22100	48100			22000000	UGKG		0.00	W	10.0	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1339	EPA6010B	50200	GE	32957003	NATOT	2940	48100		V	57500000	UGKG		0.00	W	10.0	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1700	EPA3050B	111700	1517	EPA6010B	50200	GE	32957003	MNTOT	1700	9620			7710000	UGKG		0.00	W	20.0	TRACE2	50462	RMJ	100		10	48.1	AB93796N
689-2-T	101200	0000	101900	102400	1800	N	103000	1843	EPA300.0	50188	GE	32957003	NO2	1.98	4.95			15.0	MGKG		0.00	W	10.0	IC1	50370	HSC	100	32957003.0	10	9.90	AB93796N
689-2-T	101200	0000	101900	102400	1800	N	103000	1843	EPA300.0	50188	GE	32957003	OPO4	3.96	9.90			98.1	MGKG		0.00	W	10.0	IC1	50370	HSC	100	32957003.0	10	9.90	AB93796N
689-2-T	101200	0000	101900	102400	1800	N	103000	2247	EPA300.0	50188	GE	32957003	NO3	198	495			40300	MGKG		0.00	W	1000	IC1	50370	HSC	100	32957003.0	10	9.90	AB93796N
689-2-T	101200	0000	101900	102400	1900	EPA7471A	102500	1155	EPA7471A	50190	GE	32957003	HGTOT	4.11	9.04			50.5	UGKG		0.00	W	1.00	MER179	50427	AW2	100	32957003.0	10	45.2	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	AC228	1.61	5.75			96.1	PCG	2.07	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	AC227	5.81	16.85			445	PCG	5.52	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	BA133	0.555	1.293			0.937	PCG	0.369	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CA249	0.519	1.401			3.97	PCG	0.441	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CA251	2.11	4.79	U		-0.0134	PCG	1.34	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CE141	2.04	5.4			131	PCG	1.68	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CE144	3.53	8.51	U		-2.04	PCG	2.49	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CO57	0.420	1.476			3.34	PCG	0.528	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CO58	0.518	1.258	U		-0.585	PCG	0.370	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CO60	0.477	1.535	U		0.269	PCG	0.529	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CS134	0.393	.953			0.777	PCG	0.280	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CS135	2.24	9.16			563	PCG	3.46	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	CS137	0.404	.992	U		0.165	PCG	0.294	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	EU152	1.39	3.53			7.26	PCG	1.07	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	EU154	1.38	3.34			3.07	PCG	0.980	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	K40	4.78	16.62			38.9	PCG	5.92	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	MN54	0.548	1.258			1.56	PCG	0.355	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	NA22	0.465	1.173	J	I	1.11	PCG	0.354	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	NB94	0.448	1.264			5.65	PCG	0.408	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N
689-2-T	101200	0000	101900	110300	1813	N	111300	0844	EPIA-013B	50652	GP	32957003	NP239	3.01	7.49	U		2.37	PCG	2.24	0.00	D	1	HP	52273	SRB	100	32957003.0	10	1.00	AB93796N

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689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  PB212    0.852  2.624        104        PCG   0.886  0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  PM144    0.380  .944         0.417      PCG   0.282  0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  PM146    0.587  1.679        4.21       PCG   0.546  0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  RA226    0.766  6.326        872        PCG   2.28   0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  RA228    1.61   5.75         96.1       PCG   2.07   0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  RU103    0.626  1.412  U     -0.204     PCG   0.393  0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  RU106    3.53   8.05   U     -2.28      PCG   2.26   0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  SB124    0.530  1.218  U     -1.41      PCG   0.344  0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  SB125    1.54   4.24         23.5       PCG   1.35   0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  SN113    0.657  1.583  U     -0.147     PCG   0.463  0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  SN126    1.59   3.67         88.5       PCG   1.04   0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  Y88      0.535  1.113        3.59       PCG   0.289  0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  ZN65     1.11   2.626        4.89       PCG   0.758  0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957003  ZR95     0.971  2.375        2.34       PCG   0.702  0.00  D 1     HP       52273  SRB  100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110800 1314 N         110800 2025 EPA300.0   52579  GE 32957003  OXALATE  1.13   6.00   U     6.00       MGKG         0.00  W 1.00  IC1      52629  RWS  100  32957003.0   10 10.0  AB93796N
689-2-T  101200 0000 101900 110800 1314 N         110900 1748 EPA300.0   52578  GE 32957003  SO4      790    2000         71000      MGKG         0.00  W 1000  IC1      52615  RWS  100  32957003.0   10 10.0  AB93796N
689-2-T  101200 0000 101900 110800 1314 N         111000 1036 EPA300.0   52578  GE 32957003  BR       4.00   12.5   U     12.5       MGKG         0.00  W 25.0  IC1      52615  RWS  100  32957003.0   10 10.0  AB93796N
689-2-T  101200 0000 101900 110800 1314 N         111000 1036 EPA300.0   52578  GE 32957003  CL       6.50   25.0         304        MGKG         0.00  W 25.0  IC1      52615  RWS  100  32957003.0   10 10.0  AB93796N
689-2-T  101200 0000 101900 110800 1314 N         111000 1036 EPA300.0   52578  GE 32957003  F        4.25   12.5         161        MGKG         0.00  W 25.0  IC1      52615  RWS  100  32957003.0   10 10.0  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  AGTOT    186    463          1100       UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  ALTOT    713    4630      V  13000000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  ASTOT    242    463          1340000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  BATOT    86.0   463          131000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  BETOT    57.6   463          17300      UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  BTOT     759    4630         262000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  CATOT    2220   9260         17300000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  CDTOT    70.6   463          5920       UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  COTOT    103    463          1810000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  CRTOT    119    463          317000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  CUTOT    185    463          1140000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  MGTOT    341    1850         32100000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  MOTOT    157    926          387000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  NITOT    133    463          2610000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  PBTOT    183    463          637000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  SBTOT    151    926          1520       UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  SETOT    269    463          46000      UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  SNTOT    268    926       V  8100       UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  SRTOT    48.2   463          69500      UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  TITOT    62.2   463          133000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  TLTOT    370    926          2780       UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  UTOT     1630   4630         542000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  VTOT     137    463          286000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1222 EPA6010B   50200  GE 32957004  ZNTOT    255    463          385000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1355 EPA6010B   50200  GE 32957004  FETOT    3700   23100        68300000   UGKG         0.00  W 10.0  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1355 EPA6010B   50200  GE 32957004  KTOT     21300  46300        22700000   UGKG         0.00  W 10.0  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1355 EPA6010B   50200  GE 32957004  NATOT    2830   46300     V  55900000   UGKG         0.00  W 10.0  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1700 EPA3050B  111700 1533 EPA6010B   50200  GE 32957004  MNTOT    1640   9260         7490000    UGKG         0.00  W 20.0  TRACE2   50462  RMJ  100                10 46.3  AB93796N
689-2-B  101200 0000 101900 102400 1800 N         103000 1857 EPA300.0   50188  GE 32957004  NO2      1.99   4.96         10.3       MGKG         0.00  W 10.0  IC1      50370  HSC  100  32957004.0   10 9.93  AB93796N
689-2-B  101200 0000 101900 102400 1800 N         103000 1857 EPA300.0   50188  GE 32957004  OPO4     3.97   9.93   U     9.93       MGKG         0.00  W 10.0  IC1      50370  HSC  100  32957004.0   10 9.93  AB93796N
689-2-B  101200 0000 101900 102400 1800 N         103000 2302 EPA300.0   50188  GE 32957004  NO3      199    496          38800      MGKG         0.00  W 1000  IC1      50370  HSC  100  32957004.0   10 9.93  AB93796N
689-2-B  101200 0000 101900 102400 1900 EPA7471A  102500 1157 EPA7471A   50190  GE 32957004  HGTOT    4.38   9.63         46.2       UGKG         0.00  W 1.00  MER179   50427  AW2  100  32957004.0   10 48.2  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  AC228    2.34   7.9          96.0       PCG   2.78   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  AC227    7.52   21.2         427        PCG   6.84   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  BA133    0.775  2.017        1.26       PCG   0.621  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CA249    0.752  2.246        7.24       PCG   0.747  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CA251    2.65   5.95   U     -0.137     PCG   1.65   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CE141    2.40   6.38         126        PCG   1.99   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CE144    4.38   9.82   U     -4.56      PCG   2.72   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CO57     0.524  1.976        4.05       PCG   0.726  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CO58     0.761  1.831  U     -0.19      PCG   0.535  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CO60     0.679  1.541  U     -0.195     PCG   0.431  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CS134    0.550  1.292        0.712      PCG   0.371  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CS135    2.94   9.24         342        PCG   3.15   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  CS137    0.594  1.406  U     0.355      PCG   0.406  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  EU152    1.87   4.97         5.24       PCG   1.55   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  EU154    1.88   4.14   U     1.57       PCG   1.13   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  K40      6.83   22.11        38.6       PCG   7.64   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  MN54     0.638  2.424        1.09       PCG   0.893  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  NA22     0.667  1.483  U     0.568      PCG   0.408  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  NB94     0.534  1.764        6.29       PCG   0.615  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  NP239    3.78   9.58   U     3.46       PCG   2.90   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  PB212    1.10   3.26         102        PCG   1.08   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  PM144    0.550  1.202  U     0.329      PCG   0.326  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  PM146    0.854  2.684        5.32       PCG   0.915  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  RA226    1.10   7.62         929        PCG   3.26   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  RA228    2.34   7.9          96.0       PCG   2.78   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  RU103    0.917  2.103  U     -0.00908   PCG   0.593  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  RU106    5.28   11.68  U     0.490      PCG   3.20   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  SB124    0.752  1.676  U     -0.934     PCG   0.462  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  SB125    2.21   5.85         24.5       PCG   1.82   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  SN113    0.941  2.309  U     -0.955     PCG   0.684  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  SN126    2.04   5.22         71.0       PCG   1.59   0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  Y88      0.672  1.534        1.41       PCG   0.431  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  ZN65     1.38   3.36   U     -0.0651    PCG   0.990  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B  50652  GP 32957004  ZR95     1.42   3.26   U     1.30       PCG   0.920  0.00  D 1     GAMMA1   52273  SRB  100  32957004.0   10 1.00  AB93796N
689-2-B  101200 0000 101900 110800 1314 N         110800 2046 EPA300.0   52579  GE 32957004  OXALATE  1.13   6.00   U     6.00       MGKG         0.00  W 1.00  IC1      52629  RWS  100  32957004.0   10 10.0  AB93796N
689-2-B  101200 0000 101900 110800 1314 N         110900 1802 EPA300.0   52578  GE 32957004  SO4      790    2000         71900      MGKG         0.00  W 1000  IC1      52615  RWS  100  32957004.0   10 10.0  AB93796N
689-2-B  101200 0000 101900 110800 1314 N         111000 1050 EPA300.0   52578  GE 32957004  BR       4.00   12.5   U     12.5       MGKG         0.00  W 25.0  IC1      52615  RWS  100  32957004.0   10 10.0  AB93796N
689-2-B  101200 0000 101900 110800 1314 N         111000 1050 EPA300.0   52578  GE 32957004  CL       6.50   25.0         298        MGKG         0.00  W 25.0  IC1      52615  RWS  100  32957004.0   10 10.0  AB93796N
689-2-B  101200 0000 101900 110800 1314 N         111000 1050 EPA300.0   52578  GE 32957004  F        4.25   12.5         163        MGKG         0.00  W 25.0  IC1      52615  RWS  100  32957004.0   10 10.0  AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B   50200  GE 32957005  AGTOT    197    490          1430       UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 49.0  AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B   50200  GE 32957005  ALTOT    755    4900      V  13500000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 49.0  AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B   50200  GE 32957005  ASTOT    256    490          1050000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 49.0  AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B   50200  GE 32957005  BATOT    91.1   490          92200      UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 49.0  AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B   50200  GE 32957005  BETOT    61.0   490          70500      UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 49.0  AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B   50200  GE 32957005  BTOT     804    4900         283000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 49.0  AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B   50200  GE 32957005  CATOT    2350   9800         15400000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ  100                10 49.0  AB93796N
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696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  CDTOT    74.8   490         33500     UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  COTOT    109    490         781000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  CRTOT    126    490         329000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  CUTOT    196    490         1020000   UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  FETOT    784    4900     V  43900000  UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  MGTOT    361    1960        34900000  UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  MOTOT    167    980         816000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  NITOT    141    490         975000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  PBTOT    194    490         381000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  SBTOT    160    980         2160      UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  SETOT    285    490         21200     UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  SNTOT    283    980      V  8360      UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  SRTOT    51.1   490         85500     UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  TITOT    65.9   490         216000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  TLTOT    392    980         3480      UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  UTOT     1730   4900        440000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  VTOT     145    490         917000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1228 EPA6010B  50200 GE 32957005  ZNTOT    270    490         454000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1401 EPA6010B  50200 GE 32957005  KTOT     22500  49000       20900000  UGKG          0.00  W 10.0  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1401 EPA6010B  50200 GE 32957005  NATOT    3000   49000    V  52500000  UGKG          0.00  W 10.0  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1700 EPA3050B  111700 1539 EPA6010B  50200 GE 32957005  MNTOT    1740   9800        7820000   UGKG          0.00  W 20.0  TRACE2   50462 RMJ 100               10 49.0 AB93796N
696-1-T  101300 0000 101900 102400 1800 N         103000 1912 EPA300.0  50188 GE 32957005  NO2      1.98   4.94    U   4.94      MGKG          0.00  W 10.0  IC1      50370 HSC 100 32957005.0    10 9.88 AB93796N
696-1-T  101300 0000 101900 102400 1800 N         103000 1912 EPA300.0  50188 GE 32957005  OPO4     3.95   9.88        124       MGKG          0.00  W 10.0  IC1      50370 HSC 100 32957005.0    10 9.88 AB93796N
696-1-T  101300 0000 101900 102400 1800 N         103000 2316 EPA300.0  50188 GE 32957005  NO3      198    494.        37500     MGKG          0.00  W 1000  IC1      50370 HSC 100 32957005.0    10 9.88 AB93796N
696-1-T  101300 0000 101900 102400 1900 EPA7471A  102500 1158 EPA7471A  50190 GE 32957005  HGTOT    3.92   8.62        20.7      UGKG          0.00  W 1.00  MER179   50427 AW2 100 32957005.0    10 43.1 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  AC228    2.07   8.21        132       PCG   3.07    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  AC227    7.19   20.09       333       PCG   6.45    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  BA133    0.728  1.762   U   0.576     PCG   0.517   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CA249    0.703  1.727       4.34      PCG   0.512   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CA251    2.54   5.72    U   -1.19     PCG   1.59    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CE141    1.82   4.3         3.93      PCG   1.24    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CE144    4.27   9.55    U   -0.338    PCG   2.64    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CO57     0.528  1.454       4.77      PCG   0.463   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CO58     0.688  1.544   U   -0.24     PCG   0.428   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CO60     0.606  1.464   U   -0.503    PCG   0.429   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CS134    0.484  1.382       1.78      PCG   0.449   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CS135    2.75   8.99        280       PCG   3.12    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  CS137    0.533  1.327   U   0.487     PCG   0.397   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  EU152    1.75   4.31    U   -3.06     PCG   1.28    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  EU154    1.79   4.35        2.03      PCG   1.28    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  K40      6.23   23.29       39.5      PCG   8.53    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  MN54     0.577  1.501       1.86      PCG   0.462   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  NA22     0.592  1.518   J I 0.732     PCG   0.463   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  NB94     0.610  1.658       4.82      PCG   0.524   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  NP239    3.72   6.82        3.85      PCG   2.55    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  PB212    1.05   3.35        136       PCG   1.15    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  PM144    0.518  1.15    U   0.233     PCG   0.316   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  PM146    0.783  2.019       3.49      PCG   0.618   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  RA226    0.999  6.459       725       PCG   2.73    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  RA228    2.07   8.21        132       PCG   3.07    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  RU103    0.829  1.833   U   -0.122    PCG   0.502   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  RU106    4.78   10.62   U   -0.293    PCG   2.92    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  SB124    0.720  1.97        2.48      PCG   0.625   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  SB125    1.87   5.19        19.1      PCG   1.66    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  SN113    0.869  2.123   U   0.181     PCG   0.627   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  SN126    2.02   4.94        15.9      PCG   1.46    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  Y88      0.551  1.679       3.70      PCG   0.564   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  ZN65     1.59   3.59        10.3      PCG   1.00    0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957005  ZR95     1.27   3.024   U   1.06      PCG   0.877   0.00  D 1     GAMMA16  52273 SRB 100 32957005.0    10 1.00 AB93796N
696-1-T  101300 0000 101900 110800 1314 N         110800 2106 EPA300.0  52579 GE 32957005  OXALATE  1.13   6.00    U   6.00      MGKG          0.00  W 1.00  IC1      52629 RWS 100 32957005.0    10 10.0 AB93796N
696-1-T  101300 0000 101900 110800 1314 N         110900 1817 EPA300.0  52578 GE 32957005  SO4      790    2000        63300     MGKG          0.00  W 1000  IC1      52615 RWS 100 32957005.0    10 10.0 AB93796N
696-1-T  101300 0000 101900 110800 1314 N         111000 1104 EPA300.0  52578 GE 32957005  BR       4.00   12.5    U   12.5      MGKG          0.00  W 25.0  IC1      52615 RWS 100 32957005.0    10 10.0 AB93796N
696-1-T  101300 0000 101900 110800 1314 N         111000 1104 EPA300.0  52578 GE 32957005  CL       6.50   25.0        330       MGKG          0.00  W 25.0  IC1      52615 RWS 100 32957005.0    10 10.0 AB93796N
696-1-T  101300 0000 101900 110800 1314 N         111000 1104 EPA300.0  52578 GE 32957005  F        4.25   12.5        174       MGKG          0.00  W 25.0  IC1      52615 RWS 100 32957005.0    10 10.0 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  AGTOT    191    476         1280      UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  ALTOT    733    4760     V  13500000  UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  ASTOT    249    476         990000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  BATOT    88.5   476         88500     UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  BETOT    59.2   476         60000     UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  BTOT     781    4760        277000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  CATOT    2290   9520        14600000  UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  CDTOT    72.7   476         29100     UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  COTOT    106    476         762000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  CRTOT    123    476         321000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  CUTOT    190    476         1000000   UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  FETOT    762    4760     V  43600000  UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  MGTOT    350    1900        33800000  UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  MOTOT    162    952         745000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  NITOT    137    476         951000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  PBTOT    189    476         361000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  SBTOT    155    952         1860      UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  SETOT    277    476         20100     UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  SNTOT    275    952      V  8210      UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  SRTOT    49.6   476         83600     UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.8 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  TITOT    64.0   476         216000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  TLTOT    381    952         3020      UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  UTOT     1680   4760        435000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  VTOT     141    476         957000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1233 EPA6010B  50200 GE 32957006  ZNTOT    262    476         454000    UGKG          0.00  W 2.00  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1406 EPA6010B  50200 GE 32957006  KTOT     21900  47600       22600000  UGKG          0.00  W 10.0  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1406 EPA6010B  50200 GE 32957006  NATOT    2910   47600    V  59300000  UGKG          0.00  W 10.0  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1700 EPA3050B  111700 1544 EPA6010B  50200 GE 32957006  MNTOT    1690   9520        7870000   UGKG          0.00  W 20.0  TRACE2   50462 RMJ 100               10 47.6 AB93796N
696-1-B  101300 0000 101900 102400 1800 N         103000 1926 EPA300.0  50188 GE 32957006  NO2      2.00   5.00    U   5.00      MGKG          0.00  W 10.0  IC1      50370 HSC 100 32957006.0    10 10.0 AB93796N
696-1-B  101300 0000 101900 102400 1800 N         103000 1926 EPA300.0  50188 GE 32957006  OPO4     4.00   10.0        117       MGKG          0.00  W 10.0  IC1      50370 HSC 100 32957006.0    10 10.0 AB93796N
696-1-B  101300 0000 101900 102400 1800 N         103000 2331 EPA300.0  50188 GE 32957006  NO3      200    500         37700     MGKG          0.00  W 1000  IC1      50370 HSC 100 32957006.0    10 10.0 AB93796N
696-1-B  101300 0000 101900 102400 1900 EPA7471A  102500 1200 EPA7471A  50190 GE 32957006  HGTOT    4.01   8.81        17.2      UGKG          0.00  W 1.00  MER179   50427 AW2 100 32957006.0    10 44.1 AB93796N
696-1-B  101300 0000 101900 110300 1813 N         111300 0845 EPIA-013B 50652 GP 32957006  AC228    2.59   9.73        132       PCG   3.57    0.00  D 1     GAMMA17  52273 SRB 100 32957006.0    10 1.00 AB93796N
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696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  AC227     7.71    21.57          353        PCG   6.93    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  BA133     0.846   1.926          0.920      PCG   0.540   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CA249     0.826   1.934          3.50       PCG   0.554   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CA251     2.79    6.67    U      0.795      PCG   1.94    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CE141     2.15    5.15           22.0       PCG   1.50    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CE144     4.60    10.88   U      -1.38      PCG   3.03    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CO57      0.550   1.494          5.13       PCG   0.472   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CO58      0.862   1.982   U      -4.33      PCG   0.560   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CO60      0.745   1.673   U      -0.247     PCG   0.464   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CS134     0.718   1.656          5.21       PCG   0.469   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CS135     2.97    12.83          498        PCG   4.93    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  CS137     0.722   1.74           1.41       PCG   0.509   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  EU152     1.94    4.78    U      -7.02      PCG   1.42    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  EU154     2.11    5.29    U      2.10       PCG   1.59    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  K40       7.46    23.06          35.1       PCG   7.80    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  MN54      0.723   2.273          2.49       PCG   0.775   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  NA22      0.726   1.876   J  I   0.756      PCG   0.575   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  NB94      0.750   2.072          5.29       PCG   0.661   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  NP239     3.81    9.07    U      2.02       PCG   2.63    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  PB212     1.12    3.62           133        PCG   1.25    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  PM144     0.645   1.467   U      0.0298     PCG   0.411   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  PM146     0.919   2.643          3.88       PCG   0.862   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  RA226     1.18    7.88           773        PCG   3.35    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  RA228     2.59    9.73           132        PCG   3.57    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  RU103     0.993   2.245   U      -0.0464    PCG   0.626   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  RU106     5.89    13.37   U      -0.172     PCG   3.74    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  SB124     0.841   2.061   U      0.0888     PCG   0.610   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  SB125     2.24    5.84           21.2       PCG   1.80    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  SN113     1.02    2.476   U      0.0212     PCG   0.728   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  SN126     1.81    22.81          73.6       PCG   10.5    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  Y88       0.650   2.442          3.77       PCG   0.896   0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  ZN65      1.86    4.22           10.1       PCG   1.18    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110300 1813 N           111300 0845 EPIA-013B  50652  GP 32957006  ZR95      1.59    3.77    U      0.875      PCG   1.09    0.00  D 1     GAMMA17  52273  SRB  100  32957006.0  10 1.00  AB93796N
696-1-B  101300 0000 101900 110800 1314 N           110800 2126 EPA300.0   52579  GE 32957006  OXALATE   1.13    6.00    U      6.00       MGKG          0.00  W 1.00  IC1      52629  RWS  100  32957006.0  10 10.0  AB93796N
696-1-B  101300 0000 101900 110800 1314 N           110900 1831 EPA300.0   52578  GE 32957006  SO4       790     2000           71200      MGKG          0.00  W 1000  IC1      52615  RWS  100  32957006.0  10 10.0  AB93796N
696-1-B  101300 0000 101900 110800 1314 N           111000 1202 EPA300.0   52578  GE 32957006  BR        4.00    12.5    U      12.5       MGKG          0.00  W 25.0  IC1      52615  RWS  100  32957006.0  10 10.0  AB93796N
696-1-B  101300 0000 101900 110800 1314 N           111000 1202 EPA300.0   52578  GE 32957006  CL        6.50    25.0           332        MGKG          0.00  W 25.0  IC1      52615  RWS  100  32957006.0  10 10.0  AB93796N
696-1-B  101300 0000 101900 110800 1314 N           111000 1202 EPA300.0   52578  GE 32957006  F         4.25    12.5           196        MGKG          0.00  W 25.0  IC1      52615  RWS  100  32957006.0  10 10.0  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  AGTOT     186     463            1320       UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  ALTOT     713     4630       V   13200000   UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  ASTOT     242     463            1020000    UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  BATOT     86.0    463            88700      UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  BETOT     57.6    463            66300      UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  BTOT      759     4630           279000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  CATOT     2220    9260           15000000   UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  CDTOT     70.6    463            30500      UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  COTOT     103     463            818000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  CRTOT     119     463            316000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  CUTOT     185     463            951000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  FETOT     741     4630       V   42700000   UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  MGTOT     341     1850           34100000   UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  MOTOT     157     926            773000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  NITOT     133     463            1030000    UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  PBTOT     183     463            376000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  SBTOT     151     926            2240       UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  SETOT     269     463            21000      UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  SNTOT     268     926        V   7990       UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  SRTOT     48.2    463            81400      UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  TITOT     62.2    463            196000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  TLTOT     370     926            2740       UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  UTOT      1630    4630           419000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  VTOT      137     463            706000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1239 EPA6010B   50200  GE 32957007  ZNTOT     255     463            411000     UGKG          0.00  W 2.00  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1412 EPA6010B   50200  GE 32957007  KTOT      21300   46300          27700000   UGKG          0.00  W 10.0  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1412 EPA6010B   50200  GE 32957007  NATOT     2830    46300      V   70100000   UGKG          0.00  W 10.0  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1700 EPA3050B    111700 1550 EPA6010B   50200  GE 32957007  MNTOT     1640    9260           7860000    UGKG          0.00  W 20.0  TRACE2   50462  RMJ  100              10 46.3  AB93796N
696-2-T  101300 0000 101900 102400 1800 N           103000 2009 EPA300.0   50188  GE 32957007  NO2       1.99    4.98           10.4       MGKG          0.00  W 10.0  IC1      50370  HSC  100  32957007.0  10 9.95  AB93796N
696-2-T  101300 0000 101900 102400 1800 N           103000 2009 EPA300.0   50188  GE 32957007  OPO4      3.98    9.95    U      9.95       MGKG          0.00  W 10.0  IC1      50370  HSC  100  32957007.0  10 9.95  AB93796N
696-2-T  101300 0000 101900 102400 1800 N           103000 2345 EPA300.0   50188  GE 32957007  NO3       199     498            37500      MGKG          0.00  W 1000  IC1      50370  HSC  100  32957007.0  10 9.95  AB93796N
696-2-T  101300 0000 101900 102400 1900 EPA7471A    102500 1202 EPA7471A   50190  GE 32957007  HGTOT     4.21    9.24           18.8       UGKG          0.00  W 1.00  MER179   50427  AW2  100  32957007.0  10 46.2  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  AC228     3.63    12.77          126        PCG   4.57    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  AC227     11.9    34.3           350        PCG   11.2    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  BA133     1.46    3.368          15.3       PCG   0.954   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CA249     1.20    3.11           4.39       PCG   0.955   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CA251     4.07    9.17    U      -2.94      PCG   2.55    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CE141     2.80    10.16          81.9       PCG   3.68    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CE144     6.60    16.08   U      -3.51      PCG   4.74    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CO57      0.781   2.771          3.19       PCG   0.995   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CO58      1.17    2.828   U      -0.553     PCG   0.829   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CO60      0.932   2.09    U      -0.43      PCG   0.579   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CS134     1.08    2.532          6.23       PCG   0.726   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CS135     7.74    16.46          307        PCG   4.36    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  CS137     0.982   2.384          1.63       PCG   0.701   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  EU152     3.31    7.81           3.58       PCG   2.25    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  EU154     2.63    7.57           3.47       PCG   2.47    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  K40       9.48    34.28          40.7       PCG   12.4    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  MN54      1.07    2.088   U      0.347      PCG   0.509   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  NA22      0.921   2.707   J  I   1.25       PCG   0.893   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  NB94      0.989   2.643          5.00       PCG   0.827   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  NP239     5.54    13.52   U      -5.99      PCG   3.99    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  PB212     1.74    5.4            140        PCG   1.83    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  PM144     0.895   2.033   U      -0.0857    PCG   0.569   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  PM146     1.33    3.57           4.47       PCG   1.12    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  RA226     1.84    10.54          789        PCG   4.35    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  RA228     3.63    12.77          126        PCG   4.57    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  RU103     1.46    3.302   U      0.0231     PCG   0.921   0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
696-2-T  101300 0000 101900 110300 1813 N           111300 0846 EPIA-013B  50652  GP 32957007  RU106     8.38    18.94   U      3.00       PCG   5.28    0.00  D 1     WELL     52273  SRB  100  32957007.0  10 1.00  AB93796N
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696-2-T    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  SB124    1.32   4.3     U    -1.38     PCG   1.49   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  SB125    3.29   9.03         24.0      PCG   2.87   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  SN113    1.54   3.76         1.96      PCG   1.11   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  SN126    2.62   7.54         84.8      PCG   2.46   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  Y88      1.10   2.488        3.09      PCG   0.694  0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  ZN65     2.49   5.73         10.6      PCG   1.62   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  ZR95     2.29   5.09    U    1.20      PCG   1.40   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T    101300 0000 101900 110800 1314 N         110800 2227 EPA300.0   52579  GE 32957007  OXALATE  1.13   6.00    U    6.00      MGKG         0.00   W 1.00  IC1      52629  RWS 100  32957007.0  10 10.0  AB93796N
696-2-T    101300 0000 101900 110800 1314 N         110900 1845 EPA300.0   52578  GE 32957007  SO4      790    2000         62300     MGKG         0.00   W 1000  IC1      52615  RWS 100  32957007.0  10 10.0  AB93796N
696-2-T    101300 0000 101900 110800 1314 N         111000 1216 EPA300.0   52578  GE 32957007  BR       4.00   12.5    U    12.5      MGKG         0.00   W 25.0  IC1      52615  RWS 100  32957007.0  10 10.0  AB93796N
696-2-T    101300 0000 101900 110800 1314 N         111000 1216 EPA300.0   52578  GE 32957007  CL       6.50   25.0         306       MGKG         0.00   W 25.0  IC1      52615  RWS 100  32957007.0  10 10.0  AB93796N
696-2-T    101300 0000 101900 110800 1314 N         111000 1216 EPA300.0   52578  GE 32957007  F        4.25   12.5         183       MGKG         0.00   W 25.0  IC1      52615  RWS 100  32957007.0  10 10.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  AGTOT    197    490          1160      UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  ALTOT    755    4900      V  13800000  UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  ASTOT    256    490          1040000   UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  BATOT    91.1   490          89300     UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  BETOT    61.0   490          61500     UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  BTOT     804    4900         292000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  CATOT    2350   9800         15200000  UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  CDTOT    74.8   490          27500     UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  COTOT    109    490          908000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  CRTOT    126    490          323000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  CUTOT    196    490          953000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  FETOT    784    4900      V  45700000  UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  MGTOT    361    1960         35200000  UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  MOTOT    167    980          732000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  NITOT    141    490          1160000   UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  PBTOT    194    490          386000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  SBTOT    160    980          1890      UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  SETOT    285    490          22000     UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  SNTOT    283    980       V  8060      UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  SRTOT    51.1   490          83300     UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  TITOT    65.9   490          191000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  TLTOT    392    980          2310      UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  UTOT     1730   4900         431000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  VTOT     145    490          635000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  ZNTOT    270    490          431000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1417 EPA6010B   50200  GE 32957008  KTOT     22500  49000        31800000  UGKG         0.00   W 10.0  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1417 EPA6010B   50200  GE 32957008  NATOT    3000   49000     V  77500000  UGKG         0.00   W 10.0  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1700 EPA3050B  111700 1555 EPA6010B   50200  GE 32957008  MNTOT    1740   9800         8070000   UGKG         0.00   W 20.0  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B    101300 0000 101900 102400 1800 N         103000 2024 EPA300.0   50188  GE 32957008  NO2      2.00   5.00         10.3      MGKG         0.00   W 10.0  IC1      50370  HSC 100  32957008.0  10 10.0  AB93796N
696-2-B    101300 0000 101900 102400 1800 N         103000 2024 EPA300.0   50188  GE 32957008  OPO4     4.00   10.0    U    10.0      MGKG         0.00   W 10.0  IC1      50370  HSC 100  32957008.0  10 10.0  AB93796N
696-2-B    101300 0000 101900 102400 1800 N         103000 2359 EPA300.0   50188  GE 32957008  NO3      200    500          36700     MGKG         0.00   W 1000  IC1      50370  HSC 100  32957008.0  10 10.0  AB93796N
696-2-B    101300 0000 101900 102400 1900 EPA7471A  102500 1207 EPA7471A   50190  GE 32957008  HGTOT    3.94   8.66         20.6      UGKG         0.00   W 1.00  MER179   50427  AW2 100  32957008.0  10 43.3  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  AC228    2.27   8.55         136       PCG   3.14   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  AC227    7.61   21.11        358       PCG   6.75   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  BA133    0.794  1.894        1.10      PCG   0.550  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CA249    0.757  1.855        3.80      PCG   0.549  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CA251    2.66   6.04    U    -2.52     PCG   1.69   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CE141    2.10   6.02         135       PCG   1.96   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CE144    4.40   10.26   U    2.94      PCG   2.93   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CO57     0.536  1.64         4.69      PCG   0.552  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CO58     0.749  1.705   U    -0.80     PCG   0.478  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CO60     0.666  1.48    U    -0.0919   PCG   0.407  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CS134    0.591  1.385        1.82      PCG   0.397  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CS135    2.93   12.85        493       PCG   4.96   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CS137    0.603  1.465   U    0.577     PCG   0.431  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  EU152    1.92   4.72    U    -0.243    PCG   1.40   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  EU154    1.86   4.52    U    1.05      PCG   1.33   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  K40      7.72   17.84        24.4      PCG   5.06   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  MN54     0.622  1.694        2.55      PCG   0.536  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  NA22     0.654  1.614   U    0.380     PCG   0.480  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  NB94     0.658  2.014        4.81      PCG   0.678  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  NP239    3.81   8.23    U    3.54      PCG   2.21   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  PB212    1.12   3.52         143       PCG   1.20   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  PM144    0.571  1.457   U    0.477     PCG   0.443  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  PM146    0.847  2.513        4.19      PCG   0.833  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  RA226    1.08   7.24         743       PCG   3.08   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  RA228    2.27   8.55         136       PCG   3.14   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  RU103    0.904  2.016   U    -0.292    PCG   0.556  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  RU106    5.31   11.85   U    2.02      PCG   3.27   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  SB124    0.772  1.846   U    0.548     PCG   0.537  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  SB125    2.11   5.89         22.0      PCG   1.89   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  SN113    0.945  2.333   U    0.0904    PCG   0.694  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  SN126    2.09   5.31         61.0      PCG   1.61   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  Y88      0.619  2.151        3.54      PCG   0.766  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  ZN65     1.95   4.19         20.3      PCG   1.12   0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  ZR95     1.39   3.354   U    0.621     PCG   0.982  0.00   D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B    101300 0000 101900 110800 1314 N         110800 2248 EPA300.0   52579  GE 32957008  OXALATE  1.13   6.00    U    6.00      MGKG         0.00   W 1.00  IC1      52629  RWS 100  32957008.0  10 10.0  AB93796N
696-2-B    101300 0000 101900 110800 1314 N         111000 0909 EPA300.0   52578  GE 32957008  SO4      790    2000         64200     MGKG         0.00   W 1000  IC1      52615  RWS 100  32957008.0  10 10.0  AB93796N
696-2-B    101300 0000 101900 110800 1314 N         111000 1230 EPA300.0   52578  GE 32957008  BR       4.00   12.5         172       MGKG         0.00   W 25.0  IC1      52615  RWS 100  32957008.0  10 10.0  AB93796N
696-2-B    101300 0000 101900 110800 1314 N         111000 1230 EPA300.0   52578  GE 32957008  CL       6.50   25.0         303       MGKG         0.00   W 25.0  IC1      52615  RWS 100  32957008.0  10 10.0  AB93796N
696-2-B    101300 0000 101900 110800 1314 N         111000 1230 EPA300.0   52578  GE 32957008  F        4.25   12.5         175       MGKG         0.00   W 25.0  IC1      52615  RWS 100  32957008.0  10 10.0  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  AGTOT    188    467          758       UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  ALTOT    720    4670      V  14700000  UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  ASTOT    244    467          1030000   UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  BATOT    86.8   467          90500     UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  BETOT    58.1   467          34600     UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  BTOT     766    4670         301000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  CATOT    2240   9350         14600000  UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  CDTOT    71.3   467          14900     UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  COTOT    104    467          1090000   UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  CRTOT    121    467          318000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  CUTOT    187    467          973000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  MGTOT    344    1870         34800000  UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  MOTOT    159    935          513000    UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB   101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  NITOT    135    467          1450000   UGKG         0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
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696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		PBTOT	185	467			400000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		SBTOT	152	935			951	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		SETOT	272	467			24300	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		SNTOT	270	935		V	7160	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		SRTOT	48.7	467			82100	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		TITOT	62.8	467			176000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		TLTOT	374	935			1220	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		UTOT	1640	4670			462000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		VTOT	138	467			582000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1250	EPA6010B	50200	GE	32957009		ZNTOT	257	467			461000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1423	EPA6010B	50200	GE	32957009		FETOT	3740	23400			90600000	UGKG		0.00		W	10.0	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1423	EPA6010B	50200	GE	32957009		KTOT	21400	46700			26900000	UGKG		0.00		W	10.0	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1423	EPA6010B	50200	GE	32957009		NATOT	2860	46700		V	59800000	UGKG		0.00		W	10.0	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1700	EPA3050B	111700	1601	EPA6010B	50200	GE	32957009		MNTOT	1650	9350			9090000	UGKG		0.00		W	20.0	TRACE2	50462	RMJ	100			10	46.7	AB93796N
696-GRAB	101300	0000	101900	102400	1800	N	103000	2038	EPA300.0	50188	GE	32957009		NO2	2.00	4.99	U		4.99	MGKG		0.00		W	10.0	IC1	50370	HSC	100	32957009.0		10	9.98	AB93796N
696-GRAB	101300	0000	101900	102400	1800	N	103000	2038	EPA300.0	50188	GE	32957009		OPO4	3.99	9.98			137	MGKG		0.00		W	10.0	IC1	50370	HSC	100	32957009.0		10	9.98	AB93796N
696-GRAB	101300	0000	101900	102400	1800	N	103100	0042	EPA300.0	50188	GE	32957009		NO3	200	499			38600	MGKG		0.00		W	1000	IC1	50370	HSC	100	32957009.0		10	9.98	AB93796N
696-GRAB	101300	0000	101900	102400	1900	EPA7471A	102500	1209	EPA7471A	50190	GE	32957009		HGTOT	3.95	8.68			26.2	UGKG		0.00		W	1.00	MER179	50427	AW2	100	32957009.0		10	43.4	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		AC228	2.14	7.94			118	PCG	2.90	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		AC227	7.04	20.86			400	PCG	6.91	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		BA133	0.710	1.816			1.07	PCG	0.553	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CA249	0.678	1.67			3.82	PCG	0.496	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CA251	2.44	5.52	U		-0.751	PCG	1.54	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CE141	2.16	5.84			129	PCG	1.84	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CE144	4.10	9.24	U		-4.99	PCG	2.57	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CO57	0.499	1.383			5.28	PCG	0.442	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CO58	0.702	1.708	U		-0.346	PCG	0.503	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CO60	0.637	1.415	U		-0.323	PCG	0.389	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CS134	0.493	1.383			0.930	PCG	0.445	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CS135	2.69	8.59			313	PCG	2.95	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		CS137	0.551	1.319	U		0.0833	PCG	0.384	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		EU152	1.73	4.29			5.45	PCG	1.28	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		EU154	1.81	4.43	U		1.47	PCG	1.31	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		K40	8.31	21.33			38.8	PCG	7.51	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		MN54	0.582	1.506			1.81	PCG	0.462	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		NA22	0.622	1.566	U		0.530	PCG	0.472	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		NB94	0.605	1.727			4.72	PCG	0.561	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		NP239	3.60	8.46			3.84	PCG	2.43	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		PB212	1.02	3.18			124	PCG	1.08	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		PM144	0.515	1.259	U		0.297	PCG	0.372	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		PM146	0.760	1.85			2.56	PCG	0.545	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		RA226	1.02	6.36			695	PCG	2.67	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		RA228	2.14	7.94			118	PCG	2.90	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		RU103	0.819	1.813	U		-0.0042	PCG	0.497	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		RU106	4.82	10.74	U		-0.818	PCG	2.96	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		SB124	0.711	1.949			1.29	PCG	0.619	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		SB125	1.94	5.14			22.1	PCG	1.60	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		SN113	0.840	2.06	U		0.00982	PCG	0.610	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		SN126	2.04	4.76			71.5	PCG	1.36	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		Y88	0.561	1.877			3.78	PCG	0.658	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		ZN65	1.50	3.5			6.22	PCG	1.00	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110300	1813	N	111300	0847	EPIA-013B	50652	GP	32957009		ZR95	1.29	3.074			1.59	PCG	0.892	0.00		D	1	GAMMA10	52273	SRB	100	32957009.0		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110800	1314	N	110800	2308	EPA300.0	52579	GE	32957009		OXALATE	1.13	6.00	U		6.00	MGKG		0.00		W	1.00	IC1	52629	RWS	100	32957009.0		10	10.0	AB93796N
696-GRAB	101300	0000	101900	110800	1314	N	111000	0924	EPA300.0	52578	GE	32957009		SO4	790	2000			67200	MGKG		0.00		W	1000	IC1	52615	RWS	100	32957009.0		10	10.0	AB93796N
696-GRAB	101300	0000	101900	110800	1314	N	111000	1245	EPA300.0	52578	GE	32957009		BR	4.00	12.5	U		12.5	MGKG		0.00		W	25.0	IC1	52615	RWS	100	32957009.0		10	10.0	AB93796N
696-GRAB	101300	0000	101900	110800	1314	N	111000	1245	EPA300.0	52578	GE	32957009		CL	6.50	25.0			283	MGKG		0.00		W	25.0	IC1	52615	RWS	100	32957009.0		10	10.0	AB93796N
696-GRAB	101300	0000	101900	110800	1314	N	111000	1245	EPA300.0	52578	GE	32957009		F	4.25	12.5			179	MGKG		0.00		W	25.0	IC1	52615	RWS	100	32957009.0		10	10.0	AB93796N
LB	102400	1800	102400	102400	1800	N	103000	1717	EPA300.0	50188	GE	1000120398	3	NO2	0.203	0.508	U		0.508	MGKG		0.00		W	1.00	IC2	50370	HSC	100		D	1	10.2	AB93796N
LB	102400	1800	102400	102400	1800	N	103000	1717	EPA300.0	50188	GE	1000120398	3	NO3	0.203	0.508	U		0.508	MGKG		0.00		W	1.00	IC2	50370	HSC	100		D	1	10.2	AB93796N
LB	102400	1800	102400	102400	1800	N	103000	1717	EPA300.0	50188	GE	1000120398	3	OPO4	0.406	1.02	U		1.02	MGKG		0.00		W	1.00	IC2	50370	HSC	100		D	1	10.2	AB93796N
LB	102400	1800	102400	102400	1800	N	103000	1731	EPA300.0	50188	GE	1000120399	2D	NO2	0.199	0.496			104	MGKG		99.3	104	W	1.00	IC2	50370	HSC	100		D	1	9.93	AB93796N
LB	102400	1800	102400	102400	1800	N	103000	1731	EPA300.0	50188	GE	1000120399	2D	NO3	0.199	0.496			52.3	MGKG		49.6	105	W	1.00	IC2	50370	HSC	100		D	1	9.93	AB93796N
LB	102400	1800	102400	102400	1800	N	103000	1731	EPA300.0	50188	GE	1000120399	2D	OPO4	0.397	0.993			101	MGKG		99.3	101	W	1.00	IC2	50370	HSC	100		D	1	9.93	AB93796N
689-1-T	101200	0000	101900	102400	1800	N	103000	1800	EPA300.0	50188	GE	1000120400	1	NO2	2.00	4.99			11.4	MGKG		0.00		W	10.0	IC1	50370	HSC	100		D	1	9.98	AB93796N
689-1-T	101200	0000	101900	102400	1800	N	103000	1800	EPA300.0	50188	GE	1000120400	1	OPO4	3.99	9.98			29.6	MGKG		0.00		W	10.0	IC1	50370	HSC	100		D	1	9.98	AB93796N
689-1-T	101200	0000	101900	102400	1800	N	103000	2204	EPA300.0	50188	GE	1000120400	1	NO3	200	499			39000	MGKG		0.00		W	1000	IC1	50370	HSC	100		D	1	9.98	AB93796N
689-1-T	101200	0000	101900	102400	1800	N	103000	1814	EPA300.0	50188	GE	1000120401	2A	NO2	2.00	5.00			104	MGKG		100	93	W	10.0	IC1	50370	HSC	100		D	1	10.0	AB93796N
689-1-T	101200	0000	101900	102400	1800	N	103000	1814	EPA300.0	50188	GE	1000120401	2A	OPO4	4.00	10.0			105	MGKG		100	68	W	10.0	IC1	50370	HSC	100		D	1	10.0	AB93796N
689-1-T	101200	0000	101900	102400	1800	N	103000	2219	EPA300.0	50188	GE	1000120401	2A	NO3	200	500			38900	MGKG		50.0	1210	W	1000	IC1	50370	HSC	100		D	1	10.0	AB93796N
LB	102400	1900	102400	102400	1900	EPA7471A	102500	1141	EPA7471A	50190	GE	1000120410	3	HGTOT	4.55	10.0	U		10.0	UGKG		0.00		W	1.00	MER179	50427	AW2	100		D	1	50.0	AB93796N
689-1-T	101200	0000	101900	102400	1900	EPA7471A	102500	1150	EPA7471A	50190	GE	1000120411	2A	HGTOT	4.06	8.93			149	UGKG		89.3	102	W	1.00	MER179	50427	AW2	100		D	1	44.6	AB93796N
689-1-T	101200	0000	101900	102400	1900	EPA7471A	102500	1151	EPA7471A	50190	GE	1000120412	2B	HGTOT	4.34	9.54			152	UGKG		95.4	98	W	1.00	MER179	50427	AW2	100		D	1	47.7	AB93796N
LB	102400	1900	102400	102400	1900	EPA7471A	102500	1146	EPA7471A	50190	GE	1000120413	2D	HGTOT	68.3	150			3160	UGKG		3130	101	W	5.00	MER179	50427	AW2	100		D	1	150	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	AGTOT	201	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	ALTOT	770	5000	J	IV	1100	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	ASTOT	261	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	BATOT	92.9	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	BETOT	62.2	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	BTOT	820	5000	U		5000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	CATOT	2400	10000	U		10000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	CDTOT	76.3	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	COTOT	111	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	CRTOT	129	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	CUTOT	200	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	FETOT	800	5000	J	IV	3110	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	KTOT	4590	10000	U		10000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	MGTOT	368	2000	U		2000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	MNTOT	177	1000	U		1000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	MOTOT	170	1000	U		1000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	NATOT	611	10000	J	IV	4640	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	NITOT	144	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	PBTOT	198	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	SBTOT	163	1000	U		1000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	SETOT	291	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	SNTOT	289	1000	J	IV	376	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	SRTOT	52.1	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	TITOT	67.2	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100		D	1	50.0	AB93796N

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LB       102400 1700 102400 102400 1700 EPA3050B  111700 1127 EPA6010B  50200  GE 1000120460  3   TLTOT  400     1000    U        1000      UGKG          0.00                 W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1127 EPA6010B  50200  GE 1000120460  3   UTOT   1760    5000    U        5000      UGKG          0.00                 W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1127 EPA6010B  50200  GE 1000120460  3   VTOT   148     500     U        500       UGKG          0.00                 W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1127 EPA6010B  50200  GE 1000120460  3   ZNTOT  275     500     U        500       UGKG          0.00                 W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  AGTOT  183     455              18100     UGKG          22700     74         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  ALTOT  700     4550       V     13900000  UGKG          227000    71         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  ASTOT  237     455              1390000   UGKG          22700     -99        W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  BATOT  84.5    455              156000    UGKG          22700     57         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  BETOT  56.5    455              32800     UGKG          22700     63         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  BTOT   745     4550             283000    UGKG          22700     26         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  CATOT  2180    9090             17700000  UGKG          227000    -161       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  CDTOT  69.4    455              20000     UGKG          22700     59         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  COTOT  101     455              1970000   UGKG          22700     -194       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  CRTOT  117     455              351000    UGKG          22700     47         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  CUTOT  182     455              1240000   UGKG          22700     -73        W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  MGTOT  335     1820             34100000  UGKG          227000    -161       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  MOTOT  155     909              424000    UGKG          22700     20         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  NITOT  131     455              2860000   UGKG          22700     -267       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  PBTOT  180     455              667000    UGKG          22700     -51        W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  SBTOT  148     909              14300     UGKG          22700     55         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  SETOT  265     455              63100     UGKG          22700     52         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  SNTOT  263     909        V     23900     UGKG          22700     66         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  SRTOT  47.4    455              89100     UGKG          22700     62         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  TITOT  61.1    455              157000    UGKG          22700     69         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  TLTOT  364     909              17500     UGKG          22700     64         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  UTOT   1600    4550             603000    UGKG          22700     20         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  VTOT   135     455              311000    UGKG          22700     49         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1149 EPA6010B  50200  GE 1000120461  2A  ZNTOT  250     455              401000    UGKG          22700     -50        W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1322 EPA6010B  50200  GE 1000120461  2A  FETOT  3640    22700            79600000  UGKG          227000    980        W 10.0  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1322 EPA6010B  50200  GE 1000120461  2A  KTOT   20900   45500            25300000  UGKG          227000    180        W 10.0  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1322 EPA6010B  50200  GE 1000120461  2A  NATOT  2780    45500      V     68400000  UGKG          227000    839        W 10.0  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1500 EPA6010B  50200  GE 1000120461  2A  MNTOT  1610    9090             8190000   UGKG          22700     1170       W 20.0  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  AGTOT  183     455              17700     UGKG          22700     73         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  ALTOT  700     4550       V     13700000  UGKG          227000    -30        W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  ASTOT  237     455              1370000   UGKG          22700     -201       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  BATOT  84.5    455              154000    UGKG          22700     47         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  BETOT  56.5    455              32700     UGKG          22700     62         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  BTOT   745     4550             279000    UGKG          22700     11         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  CATOT  2180    9090             17500000  UGKG          227000    -272       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  CDTOT  69.4    455              20100     UGKG          22700     60         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  COTOT  101     455              1940000   UGKG          22700     -340       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  CRTOT  117     455              346000    UGKG          22700     26         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  CUTOT  182     455              1210000   UGKG          22700     -182       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  MGTOT  335     1820             33600000  UGKG          227000    -417       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  MOTOT  155     909              417000    UGKG          22700     -14        W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  NITOT  131     455              2820000   UGKG          22700     -431       W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  PBTOT  180     455              658000    UGKG          22700     -91        W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  SBTOT  148     909              14500     UGKG          22700     55         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  SETOT  265     455              62900     UGKG          22700     51         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  SNTOT  263     909        V     23900     UGKG          22700     66         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  SRTOT  47.4    455              87900     UGKG          22700     57         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  TITOT  61.1    455              155000    UGKG          22700     63         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  TLTOT  364     909              17600     UGKG          22700     65         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  UTOT   1600    4550             592000    UGKG          22700     -28        W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  VTOT   135     455              307000    UGKG          22700     32         W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1155 EPA6010B  50200  GE 1000120462  2B  ZNTOT  250     455              396000    UGKG          22700     -71        W 2.00  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1328 EPA6010B  50200  GE 1000120462  2B  FETOT  3640    22700            72900000  UGKG          227000    -1960      W 10.0  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1328 EPA6010B  50200  GE 1000120462  2B  KTOT   20900   45500            23400000  UGKG          227000    -658       W 10.0  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1328 EPA6010B  50200  GE 1000120462  2B  NATOT  2780    45500      V     62200000  UGKG          227000    -1890      W 10.0  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
689-1-T  101200 0000 101900 102400 1700 EPA3050B  111700 1505 EPA6010B  50200  GE 1000120462  2B  MNTOT  1610    9090             7950000   UGKG          22700     138        W 20.0  TRACE2   50462  RMJ  100    D 1  45.5  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  AGTOT  201     500              122000    UGKG          119000    102        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  ALTOT  770     5000       V     8850000   UGKG          7980000   111        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  ASTOT  261     500              132000    UGKG          132000    100        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  BATOT  92.9    500              157000    UGKG          136000    115        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  BETOT  62.2    500              99900     UGKG          95900     104        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  BTOT   820     5000             112000    UGKG          115000    97         W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  CATOT  2400    10000            11800000  UGKG          11900000 99         W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  CDTOT  76.3    500              117000    UGKG          117000    100        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  COTOT  111     500              114000    UGKG          114000    100        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  CRTOT  129     500              92300     UGKG          91000     101        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  CUTOT  200     500              129000    UGKG          121000    106        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  FETOT  800     5000       V     15200000  UGKG          11400000 133        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  KTOT   4590    10000            3020000   UGKG          3030000   100        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  MGTOT  368     2000             3080000   UGKG          3010000   102        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  MNTOT  177     1000             341000    UGKG          310000    110        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  MOTOT  170     1000             99500     UGKG          94900     105        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  NATOT  611     10000      V     853000    UGKG          798000    107        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  NITOT  144     500              161000    UGKG          155000    104        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  PBTOT  198     500              140000    UGKG          144000    97         W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  SBTOT  163     1000             81100     UGKG          32300     251        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  SETOT  291     500              81500     UGKG          88800     92         W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  SNTOT  289     1000       V     100000    UGKG          101000    99         W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  SRTOT  52.1    500              94400     UGKG          79800     118        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  TITOT  67.2    500              316000    UGKG          163000    194        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  TLTOT  400     1000             143000    UGKG          142000    101        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  VTOT   148     500              86400     UGKG          76500     113        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       102400 1700 102400 102400 1700 EPA3050B  111700 1133 EPA6010B  50200  GE 1000120463  2D  ZNTOT  275     500              59900     UGKG          58600     102        W 2.00  TRACE2   50462  RMJ  100    D 1  50.0  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   AC228  0.141   .509    U        0.064     PCG  0.184    0.00                 W 1     GAMMA11  52273  SRB  0        4  1.00  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   AC227  0.317   .689    U        -0.0193   PCG  0.186    0.00                 W 1     GAMMA11  52273  SRB  0        4  1.00  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   BA133  0.0303  .0725   U        -0.0087   PCG  0.0211   0.00                 W 1     GAMMA11  52273  SRB  0        4  1.00  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CA249  0.0356  .0778   U        -0.00122  PCG  0.0211   0.00                 W 1     GAMMA11  52273  SRB  0        4  1.00  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CA251  0.0969  .2107   U        -0.0169   PCG  0.0569   0.00                 W 1     GAMMA11  52273  SRB  0        4  1.00  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CE141  0.0384  .0828   U        -0.0045   PCG  0.0222   0.00                 W 1     GAMMA11  52273  SRB  0        4  1.00  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CE144  0.143   .3068   U        -0.0124   PCG  0.0819   0.00                 W 1     GAMMA11  52273  SRB  0        4  1.00  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CO57   0.0171  .03702  U        -0.0041   PCG  0.00996  0.00                 W 1     GAMMA11  52273  SRB  0        4  1.00  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CO58   0.0304  .0646   U        -0.00288  PCG  0.0171   0.00                 W 1     GAMMA11  52273  SRB  0        4  1.00  AB93796N
LB       111300 0848                    EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CO60   0.0429  .0833   U        0.0161    PCG  0.0202   0.00                 W. 1    GAMMA11  52273  SRB  0        4  1.00  AB93796N
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LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CS134    0.0332  .0728   U   0.0095     PCG   0.0198  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CS135    0.121   .269    U   -0.0409    PCG   0.074   0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CS137    0.0314  .0658   U   0.000736   PCG   0.0172  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   EU152    0.0789  .1651   U   0.00648    PCG   0.0441  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   EU154    0.103   .2136   U   -0.00677   PCG   0.0553  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   K40      0.410   1.02    U   0.133      PCG   0.305   0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   MN54     0.035   .0768   U   0.0188     PCG   0.0209  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   NA22     0.0368  .0762   U   -0.00258   PCG   0.0197  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   NB94     0.0286  .0588   U   0.00508    PCG   0.0151  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   NP239    0.135   .2874   U   -0.00351   PCG   0.0762  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   PB212    0.0516  .1266   U   0.0299     PCG   0.0375  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   PM144    0.0325  .0825   U   0.00557    PCG   0.025   0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   PM146    0.0331  .0721   U   -0.0146    PCG   0.0195  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   RA226    0.0643  .1855   U   0.0204     PCG   0.0606  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   RA228    0.141   .509    U   0.064      PCG   0.184   0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   RU103    0.0297  .0613   U   0.00398    PCG   0.0158  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   RU106    0.246   .52     U   -0.027     PCG   0.137   0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   SB124    0.0341  .0731   U   -0.00484   PCG   0.0195  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   SB125    0.0755  .1635   U   0.0178     PCG   0.044   0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   SN113    0.0359  .0791   U   -0.00513   PCG   0.0216  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   SN126    0.0521  .1091   U   0.00912    PCG   0.0285  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   Y88      0.0369  .0787   U   -0.0083    PCG   0.0209  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   ZN65     0.061   .1316   U   -0.0232    PCG   0.0353  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
LB          111300 0848                        EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   ZR95     0.0538  .1146   U   -0.00614   PCG   0.0304  0.00        W 1     GAMMA11  52273  SRB  0     4    1.00  AB93796N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   AC228    0.185   .503    U   0.0101     PCG   0.159   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   AC227    0.411   .889    U   0.0454     PCG   0.239   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   BA133    0.0433  .1097   U   -0.0377    PCG   0.0332  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CA249    0.0418  .0904   U   0.0043     PCG   0.0243  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CA251    0.125   .2746   U   -0.0429    PCG   0.0748  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CE141    0.0926  .2068   U   0.0117     PCG   0.0571  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CE144    0.213   .477    U   -0.00348   PCG   0.132   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CO57     0.0265  .0591   U   0.00123    PCG   0.0163  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CO58     0.0415  .0955   U   -0.0296    PCG   0.027   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CO60     0.0494  .0982   U   0.0174     PCG   0.0244  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CS134    0.0405  .0871   U   -0.00256   PCG   0.0233  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CS135    0.156   .339    U   -0.00143   PCG   0.0915  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CS137    0.0338  .1008       0.0657     PCG   0.0335  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   EU152    0.103   .2208   U   0.0228     PCG   0.0589  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   EU154    0.115   .405    U   0.0613     PCG   0.145   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   K40      0.346   1.04    U   0.116      PCG   0.347   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   MN54     0.0409  .0913   U   -0.0175    PCG   0.0252  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   NA22     0.0411  .1455   U   0.0222     PCG   0.0522  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   NB94     0.0347  .0783   U   -0.0215    PCG   0.0218  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   NP239    0.187   .427    U   -0.0696    PCG   0.120   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   PB212    0.0601  .1921   U   0.021      PCG   0.066   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   PM144    0.0365  .0823   U   -0.000682  PCG   0.0219  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   PM146    0.0482  .103    U   0.0127     PCG   0.0274  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   RA226    0.0897  .1881   U   0.0292     PCG   0.0492  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   RA228    0.185   .503    U   0.0101     PCG   0.159   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   RU103    0.0514  .1176   U   -0.0263    PCG   0.0331  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   RU106    0.370   .792    U   -0.0227    PCG   0.211   0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   SB124    0.0509  .1191   U   -0.00796   PCG   0.0341  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   SB125    0.103   .2216   U   0.0202     PCG   0.0593  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   SN113    0.0567  .1183   U   0.0343     PCG   0.0308  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   SN126    0.0673  .1575   U   0.0519     PCG   0.0451  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   Y88      0.0545  .1079   U   0.0106     PCG   0.0267  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   ZN65     0.0819  .1831   U   -0.0482    PCG   0.0506  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
00-CIF-1345 101100 0938 101900                 EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   ZR95     0.0979  .2009   U   0.0379     PCG   0.0515  0.00        D 1     GAMMA3   52273  SRB  100   D 1  1.00  AB23463N
LB          110800 1837                        EPI A-013  110800 1837 EPIA-013B  52273  GP 1000126507  2D  CS137    1.16    7.3         458        PCG   3.07    441   104   D 1     WELL     52273  SRB  100   D 1  1.00  AB93796N
LB          110800 1314 110800 110800 1314 N              110900 1914 EPA300.0   52578  GE 1000127227  3   BR       0.161   0.505   U   0.505      MGKG          0.00        W 1.00  IC2      52615  RWS  100   D 1  10.1  AB93796N
LB          110800 1314 110800 110800 1314 N              110900 1914 EPA300.0   52578  GE 1000127227  3   CL       0.262   1.01    U   1.01       MGKG          0.00        W 1.00  IC2      52615  RWS  100   D 1  10.1  AB93796N
LB          110800 1314 110800 110800 1314 N              110900 1914 EPA300.0   52578  GE 1000127227  3   F        0.172   0.505   U   0.505      MGKG          0.00        W 1.00  IC2      52615  RWS  100   D 1  10.1  AB93796N
LB          110800 1314 110800 110800 1314 N              110900 1914 EPA300.0   52578  GE 1000127227  3   SO4      0.797   2.02    U   2.02       MGKG          0.00        W 1.00  IC2      52615  RWS  100   D 1  10.1  AB93796N
LB          110800 1314 110800 110800 1314 N              110900 1900 EPA300.0   52578  GE 1000127228  2D  BR       0.159   0.495       101        MGKG          99.1  102   W 1.00  IC2      52615  RWS  100   D 1  9.91  AB93796N
LB          110800 1314 110800 110800 1314 N              110900 1900 EPA300.0   52578  GE 1000127228  2D  CL       0.258   0.991       93.4       MGKG          99.1  94    W 1.00  IC2      52615  RWS  100   D 1  9.91  AB93796N
LB          110800 1314 110800 110800 1314 N              110900 1900 EPA300.0   52578  GE 1000127228  2D  F        0.168   0.495       104        MGKG          99.1  105   W 1.00  IC2      52615  RWS  100   D 1  9.91  AB93796N
LB          110800 1314 110800 110800 1314 N              110900 1900 EPA300.0   52578  GE 1000127228  2D  SO4      0.783   1.98        190        MGKG          198   96    W 1.00  IC2      52615  RWS  100   D 1  9.91  AB93796N
689-1-T     101200 0000 101900 110800 1314 N              110900 1705 EPA300.0   52578  GE 1000127229  1   SO4      790     2000        74400      MGKG          0.00        W 1000  IC1      52615  RWS  100   D 1  10.0  AB93796N
689-1-T     101200 0000 101900 110800 1314 N              111000 0952 EPA300.0   52578  GE 1000127229  1   BR       4.00    12.5    U   12.5       MGKG          0.00        W 25.0  IC1      52615  RWS  100   D 1  10.0  AB93796N
689-1-T     101200 0000 101900 110800 1314 N              111000 0952 EPA300.0   52578  GE 1000127229  1   CL       6.50    25.0        307        MGKG          0.00        W 25.0  IC1      52615  RWS  100   D 1  10.0  AB93796N
689-1-T     101200 0000 101900 110800 1314 N              111000 0952 EPA300.0   52578  GE 1000127229  1   F        4.25    12.5        182        MGKG          0.00        W 25.0  IC1      52615  RWS  100   D 1  10.0  AB93796N
689-1-T     101200 0000 101900 110800 1314 N              110900 1719 EPA300.0   52578  GE 1000127230  2A  SO4      790     2000        72400      MGKG          200   -790  W 1000  IC1      52615  RWS  100   D 1  10.0  AB93796N
689-1-T     101200 0000 101900 110800 1314 N              111000 1007 EPA300.0   52578  GE 1000127230  2A  BR       4.00    12.5        149        MGKG          100   149   W 25.0  IC1      52615  RWS  100   D 1  10.0  AB93796N
689-1-T     101200 0000 101900 110800 1314 N              111000 1007 EPA300.0   52578  GE 1000127230  2A  CL       6.50    25.0        391        MGKG          100   84    W 25.0  IC1      52615  RWS  100   D 1  10.0  AB93796N
689-1-T     101200 0000 101900 110800 1314 N              111000 1007 EPA300.0   52578  GE 1000127230  2A  F        4.25    12.5        193        MGKG          100   4     W 25.0  IC1      52615  RWS  100   D 1  10.0  AB93796N
LB          110800 1314 110800 110800 1314 N              110800 1823 EPA300.0   52579  GE 1000127231  3   OXALATE  1.14    6.05    U   6.05       MGKG          0.00        W 1.00  IC1      52629  RWS  100   D 1  10.1  AB93796N
LB          110800 1314 110800 110800 1314 N              110800 1844 EPA300.0   52579  GE 1000127232  2D  OXALATE  1.12    5.95        89.5       MGKG          89.3  100   W 1.00  IC1      52629  RWS  100   D 1  9.91  AB93796N
689-1-T     101200 0000 101900 110800 1314 N              110800 1924 EPA300.0   52579  GE 1000127233  1   OXALATE  1.13    6.00    U   6.00       MGKG          0.00        W 1.00  IC1      52629  RWS  100   D 1  10.0  AB93796N
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689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	AGTOT	0.00529	0.050		0.514	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	ASTOT	0.0257	0.050		5.04	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	BATOT	0.00748	0.050	J I	1.15	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	BETOT	0.00474	0.050		1.88	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	CDTOT	0.00631	0.050		0.971	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	CRTOT	0.0106	0.050		18.4	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	NITOT	0.0309	0.050		4.98	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	PBTOT	0.0183	0.050		3.92	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	SBTOT	0.0343	0.100		2.02	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	SETOT	0.0236	0.050		1.72	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	TLTOT	0.0393	0.100		2.01	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	VTOT	0.0089	0.050		2.07	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	103000	1845	EPA1311	111900	1352	EPA6010B	50629	GE	33055001	ZNTOT	0.0389	0.050		1.81	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-T	101200	0000	101900	110100	1630	EPA1311	110300	1225	EPA7470A	50629	GE	33055001	HGTOT	0.0006	0.002	U	0.002	MGL	0.00	W	1.00	MER179	51662	AW2	100	33055001.0	10	10.0	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	AGTOT	0.00529	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	ASTOT	0.0257	0.050	J I	0.0608	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	BATOT	0.00748	0.050	J I	0.224	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	BETOT	0.00474	0.050	J I	0.00549	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	CDTOT	0.00631	0.050	J I	0.0235	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	CRTOT	0.0106	0.050		8.75	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	NITOT	0.0309	0.050		51.1	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	PBTOT	0.0183	0.050	J I	0.0249	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	SBTOT	0.0343	0.100	U	0.100	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	SETOT	0.0236	0.050		1.72	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	TLTOT	0.0393	0.100		0.106	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	VTOT	0.0089	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	103000	1845	EPA1311	111900	1357	EPA6010B	50629	GE	33055002	ZNTOT	0.0389	0.050		0.314	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-1-B	101200	0000	101900	110100	1630	EPA1311	110300	1228	EPA7470A	50629	GE	33055002	HGTOT	0.0006	0.002	U	0.002	MGL	0.00	W	1.00	MER179	51662	AW2	100	33055002.0	10	10.0	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	AGTOT	0.00529	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	ASTOT	0.0257	0.050	J I	0.0417	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	BATOT	0.00748	0.050	J I	0.223	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	BETOT	0.00474	0.050	J I	0.00527	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	CDTOT	0.00631	0.050	J I	0.0256	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	CRTOT	0.0106	0.050		8.67	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	NITOT	0.0309	0.050		50.2	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	PBTOT	0.0183	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	SBTOT	0.0343	0.100	U	0.100	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	SETOT	0.0236	0.050		1.74	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	TLTOT	0.0393	0.100		0.119	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	VTOT	0.0089	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	103000	1845	EPA1311	111900	1403	EPA6010B	50629	GE	33055003	ZNTOT	0.0389	0.050		0.356	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-T	101200	0000	101900	110100	1630	EPA1311	110300	1230	EPA7470A	50629	GE	33055003	HGTOT	0.0006	0.002	U	0.002	MGL	0.00	W	1.00	MER179	51662	AW2	100	33055003.0	10	10.0	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	AGTOT	0.00529	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	ASTOT	0.0257	0.050	J I	0.0405	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	BATOT	0.00748	0.050	J I	0.227	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	BETOT	0.00474	0.050	J I	0.00501	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	CDTOT	0.00631	0.050	J I	0.0232	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	CRTOT	0.0106	0.050		8.70	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	NITOT	0.0309	0.050		49.9	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	PBTOT	0.0183	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	SBTOT	0.0343	0.100	U	0.100	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	SETOT	0.0236	0.050		1.70	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	TLTOT	0.0393	0.100		0.111	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	VTOT	0.0089	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	103000	1845	EPA1311	111900	1408	EPA6010B	50629	GE	33055004	ZNTOT	0.0389	0.050		0.305	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
689-2-B	101200	0000	101900	110100	1630	EPA1311	110300	1232	EPA7470A	50629	GE	33055004	HGTOT	0.0006	0.002	U	0.002	MGL	0.00	W	1.00	MER179	51662	AW2	100	33055004.0	10	10.0	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	AGTOT	0.00529	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	ASTOT	0.0257	0.050	J I	0.027	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	BATOT	0.00748	0.050	J I	0.280	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	BETOT	0.00474	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	CDTOT	0.00631	0.050	J I	0.0129	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	CRTOT	0.0106	0.050	J I	0.0162	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	NITOT	0.0309	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	PBTOT	0.0183	0.050	J I	0.0943	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	SBTOT	0.0343	0.100	U	0.100	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	SETOT	0.0236	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	TLTOT	0.0393	0.100	U	0.100	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	VTOT	0.0089	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	103000	1845	EPA1311	111900	1414	EPA6010B	50629	GE	33055005	ZNTOT	0.0389	0.050		1.62	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-T	101300	0000	101900	110100	1630	EPA1311	110300	1234	EPA7470A	50629	GE	33055005	HGTOT	0.0006	0.002	U	0.002	MGL	0.00	W	1.00	MER179	51662	AW2	100	33055005.0	10	10.0	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	AGTOT	0.00529	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	ASTOT	0.0257	0.050	J I	0.0516	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	BATOT	0.00748	0.050	J I	0.336	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	BETOT	0.00474	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	CDTOT	0.00631	0.050	J I	0.0318	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	CRTOT	0.0106	0.050		12.7	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	NITOT	0.0309	0.050		3.92	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	PBTOT	0.0183	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	SBTOT	0.0343	0.100	U	0.100	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	SETOT	0.0236	0.050		0.670	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	TLTOT	0.0393	0.100	J I	0.0858	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	111900	1419	EPA6010B	50629	GE	33055006	VTOT	0.0089	0.050	J I	0.0497	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	103000	1845	EPA1311	112000	1309	EPA6010B	50629	GE	33055006	ZNTOT	0.0778	0.100	U	0.100	MGL	0.00	W	20.0	TRACE2	51690	MNC	100		10	1.00	AB93796N
696-1-B	101300	0000	101900	110100	1630	EPA1311	110300	1240	EPA7470A	50629	GE	33055006	HGTOT	0.0006	0.002	U	0.002	MGL	0.00	W	1.00	MER179	51662	AW2	100	33055006.0	10	10.0	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007	AGTOT	0.00529	0.050	U	0.050	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007	ASTOT	0.0257	0.050	J I	0.0368	MGL	0.00	W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N

696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		BATOT	0.00748	0.050	J	I	0.308	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		BETOT	0.00474	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		CDTOT	0.00631	0.050	J	I	0.0315	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		CRTOT	0.0106	0.050			11.9	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		NITOT	0.0309	0.050			4.19	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		PBTOT	0.0183	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		SBTOT	0.0343	0.100	U		0.100	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		SETOT	0.0236	0.050			0.704	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		TLTOT	0.0393	0.100	J	I	0.0841	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	111900	1425	EPA6010B	50629	GE	33055007		VTOT	0.0089	0.050	J	I	0.0299	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	103000	1845	EPA1311	112000	1314	EPA6010B	50629	GE	33055007		ZNTOT	0.0778	0.100	U		0.100	MGL	0.00		W	20.0	TRACE2	51690	MNC	100		10	1.00	AB93796N
696-2-T	101300	0000	101900	110100	1630	EPA1311	110300	1242	EPA7470A	50629	GE	33055007		HGTOT	0.0006	0.002	U		0.002	MGL	0.00		W	1.00	MER179	51662	AW2	100	33055007.0	10	10.0	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		AGTOT	0.00529	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		ASTOT	0.0257	0.050	J	I	0.0495	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		BATOT	0.00748	0.050	J	I	0.346	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		BETOT	0.00474	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		CDTOT	0.00631	0.050	J	I	0.0365	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		CRTOT	0.0106	0.050			11.5	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		NITOT	0.0309	0.050			6.18	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		PBTOT	0.0183	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		SBTOT	0.0343	0.100	U		0.100	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		SETOT	0.0236	0.050			0.716	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		TLTOT	0.0393	0.100	J	I	0.0688	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	111900	1441	EPA6010B	50629	GE	33055008		VTOT	0.0089	0.050	J	I	0.0223	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	103000	1845	EPA1311	112000	1320	EPA6010B	50629	GE	33055008		ZNTOT	0.0778	0.100	U		0.100	MGL	0.00		W	20.0	TRACE2	51690	MNC	100		10	1.00	AB93796N
696-2-B	101300	0000	101900	110100	1630	EPA1311	110300	1244	EPA7470A	50629	GE	33055008		HGTOT	0.0006	0.002	U		0.002	MGL	0.00		W	1.00	MER179	51662	AW2	100	33055008.0	10	10.0	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		AGTOT	0.00529	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		ASTOT	0.0257	0.050	J	I	0.0354	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		BATOT	0.00748	0.050	J	I	0.351	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		BETOT	0.00474	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		CDTOT	0.00631	0.050	J	I	0.0315	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		CRTOT	0.0106	0.050			9.69	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		NITOT	0.0309	0.050			14.0	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		PBTOT	0.0183	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		SBTOT	0.0343	0.100	U		0.100	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		SETOT	0.0236	0.050			0.775	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		TLTOT	0.0393	0.100	J	I	0.0721	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		VTOT	0.0089	0.050	J	I	0.0177	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	103000	1845	EPA1311	111900	1447	EPA6010B	50629	GE	33055009		ZNTOT	0.0389	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	100		10	1.00	AB93796N
696-GRAB	101300	0000	101900	110100	1630	EPA1311	110300	1246	EPA7470A	50629	GE	33055009		HGTOT	0.0006	0.002	U		0.002	MGL	0.00		W	1.00	MER179	51662	AW2	100	33055009.0	10	10.0	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	AGTOT	0.00529	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	ASTOT	0.0257	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	BATOT	0.00748	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	BETOT	0.00474	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	CDTOT	0.00631	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	CRTOT	0.0106	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	NITOT	0.0309	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	PBTOT	0.0183	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	SBTOT	0.0343	0.100	U		0.100	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	SETOT	0.0236	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	TLTOT	0.0393	0.100	U		0.100	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	VTOT	0.0089	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1245	EPA6010B	50629	GE	1000121676	3	ZNTOT	0.0389	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	110100	1630	110100	110100	1630	EPA7470A	110300	1219	EPA7470A	50629	GE	1000121676	3	HGTOT	0.0006	0.002	U		0.002	MGL	0.00		W	1.00	MER179	51662	AW2	0		4	10.0	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	AGTOT	0.00529	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	ASTOT	0.0257	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	BATOT	0.00748	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	BETOT	0.00474	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	CDTOT	0.00631	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	CRTOT	0.0106	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	NITOT	0.0309	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	PBTOT	0.0183	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	SBTOT	0.0343	0.100	U		0.100	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	SETOT	0.0236	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	TLTOT	0.0393	0.100	U		0.100	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	VTOT	0.0089	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1251	EPA6010B	50629	GE	1000122008	3	ZNTOT	0.0389	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		4	1.00	AB93796N
LB	110100	1630	110100	110100	1630	EPA7470A	110300	1217	EPA7470A	50629	GE	1000122008	3	HGTOT	0.0006	0.002	U		0.002	MGL	0.00		W	1.00	MER179	51662	AW2	0		4	10.0	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	AGTOT	0.00529	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	ASTOT	0.0257	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	BATOT	0.00748	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	BETOT	0.00474	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	CDTOT	0.00631	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	CRTOT	0.0106	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	NITOT	0.0309	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	PBTOT	0.0183	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	SBTOT	0.0343	0.100	U		0.100	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	SETOT	0.0236	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	TLTOT	0.0393	0.100	U		0.100	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	VTOT	0.0089	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1240	EPA6010B	51161	GE	1000123123	3	ZNTOT	0.0389	0.050	U		0.050	MGL	0.00		W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1256	EPA6010B	51161	GE	1000123124	2D	AGTOT	0.00529	0.050			0.498	MGL	0.500	100	W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1256	EPA6010B	51161	GE	1000123124	2D	ASTOT	0.0257	0.050			4.91	MGL	5.00	98	W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1256	EPA6010B	51161	GE	1000123124	2D	BATOT	0.00748	0.050			10.1	MGL	10.0	101	W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1256	EPA6010B	51161	GE	1000123124	2D	BETOT	0.00474	0.050			1.94	MGL	2.00	97	W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N
LB	103000	1845	103000	103000	1845	EPA3010A	111900	1256	EPA6010B	51161	GE	1000123124	2D	CDTOT	0.00631	0.050			0.984	MGL	1.00	98	W	10.0	TRACE2	51690	RMJ	0		8	1.00	AB93796N

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LB        103000 1845 103000 103000 1845 EPA3010A   111900 1256 EPA6010B   51161   GE 1000123124   2D  CRTOT   0.0106   0.050       4.99     MGL   5.00    100    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1256 EPA6010B   51161   GE 1000123124   2D  NITOT   0.0309   0.050       1.97     MGL   2.00    99     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1256 EPA6010B   51161   GE 1000123124   2D  PBTOT   0.0183   0.050       4.93     MGL   5.00    99     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1256 EPA6010B   51161   GE 1000123124   2D  SBTOT   0.0343   0.100       1.99     MGL   2.00    99     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1256 EPA6010B   51161   GE 1000123124   2D  SETOT   0.0236   0.050       0.985    MGL   1.00    99     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1256 EPA6010B   51161   GE 1000123124   2D  TLTOT   0.0393   0.100       1.93     MGL   2.00    97     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1256 EPA6010B   51161   GE 1000123124   2D  VTOT    0.0089   0.050       2.02     MGL   2.00    101    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1256 EPA6010B   51161   GE 1000123124   2D  ZNTOT   0.0389   0.050       1.92     MGL   2.00    96     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  AGTOT   0.00529  0.050       0.522    MGL   0.500   104    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  ASTOT   0.0257   0.050       5.03     MGL   5.00    100    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  BATOT   0.00748  0.050       1.09     MGL   10.0    7      W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  BETOT   0.00474  0.050       1.88     MGL   2.00    94     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  CDTOT   0.00631  0.050       0.968    MGL   1.00    94     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  CRTOT   0.0106   0.050       14.6     MGL   5.00    98     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  NITOT   0.0309   0.050       16.0     MGL   2.00    99     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  PBTOT   0.0183   0.050       3.92     MGL   5.00    78     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  SBTOT   0.0343   0.100       2.06     MGL   2.00    103    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  SETOT   0.0236   0.050       1.80     MGL   1.00    103    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  TLTOT   0.0393   0.100       1.99     MGL   2.00    96     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  VTOT    0.0089   0.050       2.05     MGL   2.00    102    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1458 EPA6010B   51161   GE 1000123125   2A  ZNTOT   0.0389   0.050       1.94     MGL   2.00    95     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  AGTOT   0.00529  0.050       0.519    MGL   0.500   104    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  ASTOT   0.0257   0.050       5.04     MGL   5.00    100    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  BATOT   0.00748  0.050       1.17     MGL   10.0    8      W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  BETOT   0.00474  0.050       1.88     MGL   2.00    94     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  CDTOT   0.00631  0.050       0.967    MGL   1.00    94     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  CRTOT   0.0106   0.050       14.6     MGL   5.00    99     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  NITOT   0.0309   0.050       16.0     MGL   2.00    100    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  PBTOT   0.0183   0.050       3.93     MGL   5.00    78     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  SBTOT   0.0343   0.100       2.05     MGL   2.00    102    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  SETOT   0.0236   0.050       1.79     MGL   1.00    101    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  TLTOT   0.0393   0.100       2.03     MGL   2.00    98     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  VTOT    0.0089   0.050       2.05     MGL   2.00    102    W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 103000 1845 EPA3010A   111900 1504 EPA6010B   51161   GE 1000123126   2B  ZNTOT   0.0389   0.050       1.95     MGL   2.00    96     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
696-GRAB  101300 0000 101900 110100 1630 EPA7470A   110300 1248 EPA7470A   51164   GE 1000123139   2A  HGTOT   0.0006   0.002       0.0207   MGL   0.020   101    W 1.00  MER179  51662  AW2 0     4  10.0  AB93796N
696-GRAB  101300 0000 101900 110100 1630 EPA7470A   110300 1250 EPA7470A   51164   GE 1000123140   2B  HGTOT   0.0006   0.002       0.0207   MGL   0.020   101    W 1.00  MER179  51662  AW2 0     4  10.0  AB93796N
LB        110100 1630 110100 110100 1630 EPA7470A   110300 1215 EPA7470A   51164   GE 1000123141   3   HGTOT   0.0006   0.002  U    0.002    MGL   0.00           W 1.00  MER179  51662  AW2 0     4  10.0  AB93796N
LB        110100 1630 110100 110100 1630 EPA7470A   110300 1221 EPA7470A   51164   GE 1000123142   2D  HGTOT   0.0006   0.002       0.0182   MGL   0.020   91     W 1.00  MER179  51662  AW2 0     4  10.0  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  AGTOT   0.00529  0.050       0.448    MGL   0.500   90     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  ASTOT   0.0257   0.050       4.37     MGL   5.00    88     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  BATOT   0.00748  0.050       8.98     MGL   10.0    90     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  BETOT   0.00474  0.050       1.73     MGL   2.00    87     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  CDTOT   0.00631  0.050       0.883    MGL   1.00    88     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  CRTOT   0.0106   0.050       4.46     MGL   5.00    89     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  NITOT   0.0309   0.050       1.76     MGL   2.00    88     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  PBTOT   0.0183   0.050       4.39     MGL   5.00    88     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  SBTOT   0.0343   0.100       1.79     MGL   2.00    90     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  SETOT   0.0236   0.050       0.877    MGL   1.00    88     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  TLTOT   0.0393   0.100       1.72     MGL   2.00    86     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  VTOT    0.0089   0.050       1.81     MGL   2.00    91     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        103000 1845 103000 103000 1845 EPA3010A   111900 1302 EPA6010B   51161   GE 1000123160   2E  ZNTOT   0.0389   0.050       1.71     MGL   2.00    85     W 10.0  TRACE2  51690  RMJ 0     8  1.00  AB93796N
LB        110100 1630 110100 110100 1630 EPA7470A   110300 1223 EPA7470A   51164   GE 1000123161   2E  HGTOT   0.0006   0.002       0.019    MGL   0.020   95     W 1.00  MER179  51662  AW2 0     4  10.0  AB93796N
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GENERAL ENGINEERING LABORATORIES
RADIOACTIVE MATERIAL INVENTORY SHEET

PLEASE ATTACH APPLICABLE RADIOLOGICAL DOCUMENTATION

SAMPLE DATA ATTACHED (CIRCLE ONE) YES [✓ NO]

RECEIVED BY: LSD

DATE RECEIVED: 10/19/00

TOTAL NUMBER OF CONTAINERS: 18

VOLUME: 7600g APPROXIMATE (ml / g)

DOE/ATOMIC ENERGY ACT SAMPLE? [✓ YES] NO

TOTAL ACTIVITY:

TRITIUM:

OTHER: 71.75 mCi

LIST OF NON-TRITIUM ISOTOPES IN SHIPMENT:

~~Use Gamma Spec Results~~ 10/19/00 Th-230

GEL RECEIVING DATA

CLIENT:	WSRC / Clemson Univ
CLIENT ID NUMBERS:	See Chain
LIMS ID NUMBER:	
MAXIMUM RAD LEVELS ON CONTACT (mR/hr)	<0.5
ALPHA SURFACE CONTAMINATION	ND (CIRCLE ONE) FRISK/SWIPE
BETA GAMMA SURFACE CONTAMINATION	<470 (CIRCLE ONE) FRISK/SWIPE

RAD LICENSE SERIAL NUMBER:

REVIEWED AND APPROVED: DATE:

4500
900
5400
×1.4 =

SAMPLE RECEIPT REVIEW

Date 10/19/00

Client WSRC / Clemson

Received by LSD

	SAMPLE REVIEW CRITERIA	YES	NO	N/A	COMMENTS/QUALIFIERS
1	Were shipping containers received intact and sealed? If no, notify the Project Manager	✓			
2	Were chain of custody documents included?	✓			
3	Shipping container temperature(s) checked:	✓			Ambient 19°C
4	Is temperature documented on Chain of Custody 10/19/00 LD	~~✓~~	✓		
5	Was shipping container temperature within specifications (4 +/- 2 C) If no, notify Project Manager	✓			
6	Are any of the samples identified by the client as radioactive?	✓			Samples Are RAD
	Were the samples screened for radioactivity?	✓			
	Were the screening results <= background? If results are > background inform RSO		✓		
7	Were chain of custody documents completed correctly? (Ink, signed, match containers)	✓			
8	Were sample containers received intact and sealed? If no, notify the Project Manager	✓			
9	Were all sample containers properly labeled?	✓			
10	Were correct sample containers received?	✓			
11	Preserved samples checked for pH?		✓		
12	Were samples preserved correctly? If no, notify Project Manager	✓			
13	Were samples received within holding time? If No, notify Project Manager	✓			
14	Were VOA vials free of headspace?		✓		
15	ARCOC#				
16	SDG#				32957

PM(A) Review: Sarah Bolen

Date Reviewed: 10/20/00

Additional Comments:

GEL Work Order Containers

[Submit]

Work Order / Sample No.: [32957]

32957001.02 - 1000 ml/P - None

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:02	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957001.02.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957001.02.04 - 50 ml/P

24-OCT-2000 16:46:45	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957001.02.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957001.01 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:18	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

32957002.02 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:41	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

32957002.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

32957002.01.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

32957002.01.04 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957002.01.05 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957002.01.06 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957003.02 - 1000 ml/P - None

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:10	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

32957003.02.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

32957003.02.04 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957003.02.05 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957003.02.06 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957003.01 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:18	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:41	Chad Byas		Sample Return Shelf Radiochem

32957004.02 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

32957004.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:58	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

32957004.01.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957004.01.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957004.01.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957005.02 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

32957005.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957005.01.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957005.01.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957005.01.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957006.02 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

32957006.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

32957006.01.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

32957006.01.04 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957006.01.05 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957006.01.06 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957007.02 - 1000 ml/P - None

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

32957007.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957007.01.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957007.01.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957007.01.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957008.02 - 1000 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957008.02.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957008.02.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957008.02.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957008.01 - 250 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

32957009.02 - 1000 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:03	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
03-NOV-2000 16:19:58	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957009.02.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957009.02.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957009.02.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957009.01 - 250 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

Version 1.0 12/16/99
General Engineering Laboratories, Inc.

Work Order Containers

Submit

Work Order / Sample No.: 33055

33055001.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:19	Dionne Francis		Login Area
23-OCT-2000 17:20:15	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

33055001.02.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055001.02.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055001.02.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055001.02.04.06 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055001.01 - 250 ml/P - 4C

23-OCT-2000 16:24:19	Dionne Francis		Login Area
23-OCT-2000 17:22:49	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055002.02 - 250 ml/P - 4C

23-OCT-2000 16:24:19	Dionne Francis		Login Area
23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:15	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:41	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055002.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:19	Dionne Francis		Login Area
23-OCT-2000 17:22:49	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:29	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

33055002.01.01 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055002.01.01.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055002.01.01.05 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055003.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:50	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

33055003.02.01 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055003.02.01.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055003.02.01.05 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055003.01 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:43:18	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055004.02 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:50	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055004.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:58	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

33055004.01.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055004.01.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055004.01.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055004.01.04.06 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055005.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:40	Amy Niedfeldt		Radioactive Cooler
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

33055005.02.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055005.02.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055005.02.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055005.02.04.06 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055005.01 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:50	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055006.02 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055006.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:50	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:29	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

33055006.01.01 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055006.01.01.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055006.01.01.05 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055007.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis	Login Area
23-OCT-2000 17:20:15	Mellie Smith	Main Cooler
26-OCT-2000 14:44:40	Chad Byas	Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton	Radioactive Cooler

33055007.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:49	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:29	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:12	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

33055007.01.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055007.01.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:10	Frankie Davis		Inorganic Prep

33055007.01.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055007.01.04.06 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
01-NOV-2000 14:49:15	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055008.02 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055008.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:49	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:11:22	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:29	Jodi Elliott		General Chemistry
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27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

33055008.01.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055008.01.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:10	Frankie Davis		Inorganic Prep

33055008.01.04.01 - 50 ml/P

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33055008.01.04.06 - 50 ml/P

01-NOV-2000 14:49:15	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055009.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
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24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:22	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
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03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

33055009.02.01 - 50 ml/P

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01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:10	Frankie Davis		Inorganic Prep

33055009.02.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055009.02.04.06 - 50 ml/P

01-NOV-2000 14:49:15	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055009.01 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis	Login Area
23-OCT-2000 17:22:49	Mellie Smith	Main Cooler
26-OCT-2000 14:44:40	Chad Byas	Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton	Radioactive Cooler

Version 1.0 12/16/99
General Engineering Laboratories, Inc.

CHAIN-OF-CUSTODY

Page 2 of 2

Job Number 00542 ☐

Contract Number AB93796N

Customer Name: May, Cecil

Customer Department: WPT

Customer Address: 773-42A

Customer Phone/Beeper: 5-5813 12583

BN

Ship to:
Company: General Engineering Laboratory
Address: 2040 Savage Road
Charleston, South Carolina 29407
Attention: Lee Heath Project Manager

Westinghouse Savannah River Company
Aiken, SC 29808

COC creation date. 10/12/00

Environmental Monitoring Section
Environmental Geochemistry Group

Matrix Key: S=Soil, SO=Solid, SL=Sludge, O=Organic, A=Aqueous

Sample ID:	696-1-T	696-1-B	696-2-T	696-2 B	696-GRAB	
Collect Date	10/13/00	10/13/00	10/13/00	10/13/00	10/13/00	
Collect Time	N/A					
No. Containers	2	2	2	2	2	
Matrix	solid	solid	solid	solid	solid	
Sample Analysis Requested						
Mercury in Solid Waste (manual Cold-vapor tech.) (61)	✓	✓	✓	✓	✓	
TCLP, Metals (Prep & Analysis) (20)	✓	✓	✓	✓	✓	
Gamma PHA Scan (118), Ac-227	✓	✓		✓	✓	
Ion Chromatography Scan (194)	✓	✓	✓	✓	✓	
Radium-226 (162)	✓	✓	✓	✓	✓	
Radium-228 (164)	✓	✓	✓	✓	✓	
Inductively Coupled Plasma Mass Spec. Scan (40)	✓		✓	✓	✓	

Per Fax That Cecil May
Send with

30 Day TAT PLEASE KEEP SAMPLE RESIDUE AND WASTE SEPARATED FROM ALL WSRC SAMPLES

STR Authorization J D C Crawford

1 Relinquished by:	Date/Time	Received by:	2 Relinquished by:	Date/Time	Received by:
(Print) Steve Hoeffner	Date 10/18/00	(Print) Joe Davis 10/19/00	(Print)	Date	(Print)
(Sign) Steve Hoeffner	Time 3:30 pm	(Sign) 0900	(Sign)	Time	(Sign)
3 Relinquished by:	Date/Time	Received by:	4 Relinquished by:	Date/Time	Received by:
(Print)		(Print)	(Print)		(Print)
(Sign)	Time	(Sign)	(Sign)	Time	(Sign)

CHAIN-OF-CUSTODY

Page 1 of 2

32957, 33056

Job Number	00542 ☐
Contract Number	AB93796N
Customer Name:	May, Cecil
Customer Department:	WPT
Customer Address:	773-42A
Customer Phone/Beeper:	5-5813 12583

BN

Ship to:
Company: General Engineering Laboratory
Address: 2040 Savage Road
Charleston, South Carolina 29407
Attention: Lee Health Project Manager

Westinghouse Savannah River Company
Aiken, SC 29808

COC creation date. 10/12/00

Environmental Monitoring Section
Environmental Geochemistry Group

Matrix Key: S=Soil, SO=Solid, SL=Sludge, O=Organic, A=Aqueous

	Sample ID: 689-1-T	Sample ID: 689-1-B	Sample ID: 689-2-T	Sample ID: 689-2-B	Sample ID:	Sample ID:
Collect Date	10/12/00	10/12/00	10/12/00	10/12/00		
Collect Time	N/A					
No. Containers	2	2	2	2	3	
Matrix	solid	solid	solid	solid		
Sample Analysis Requested						
Mercury in Solid Waste (manual Cold-vapor tech.) (61)	✓	✓	✓	✓		
TCLP, Metals (Prep & Analysis) (20)	✓	✓		✓		
Gamma PHA Scan (118), Ac-227✓	✓	✓	✓	✓		
Ion Chromatography Scan (194)	✓	✓	✓	✓		
Radium-226 (162) in γ list	✓	✓	✓	✓		
Radium-228 (164) in γ list	✓	✓	✓	✓		
Inductively Coupled Plasma Mass Spec. Scan (40)	✓	✓				

Per Fax that Cecil May will Send

30 Day TAT PLEASE KEEP SAMPLE RESIDUE AND WASTE SEPARATED FROM ALL WSRC SAMPLES

STR Authorization J D C Crawford

1 Relinquished by:	**Date/Time**	**Received by:**
(Print) Steve Hoeffner	Date 10/18/00	(Print) Joe Davis 10/19/00
(Sign) Steve Hoeffner	Time ~~10/18/00~~ 3:30pm	(Sign) 0900
3 Relinquished by:	**Date/Time** 3715	**Received by:**
(Print)		(Print)
(Sign)	Time	(Sign)

2 Relinquished by:	**Date/Time**	**Received by:**
(Print)	Date	(Print)
(Sign)	Time	(Sign)
4 Relinquished by:	**Date/Time**	**Received by:**
(Print)		(Print)
(Sign)	Time	(Sign)

APPENDIX 3. Statistical Evaluation of Silo 3 Analytical Resuls

WESTINGHOUSE SAVANNAH RIVER COMPANY
INTEROFFICE MEMORANDUM

SRT-SCS-2001-00013

February 7, 2001

To: C. A. Langton, 773-43A

cc:
B. T. Butcher, 773-43A
S. P. Harris, 773-42A
C. G. May, 773-42A
R. C. Tuckfield, 773-42A
W. B. Van-Pelt, 773-42A

From: T. B. Edwards, 773-42A (5-5148)
Statistical Consulting Section

S. P. Harris, Technical Reviewer — 2/12/2001 Date

R. C. Tuckfield, Manager
Statistical Consulting Section — 2/13/2001 Date

A Statistical Analysis of Measurements from Samples of Fernald's Silo 3 (U)

EXECUTIVE SUMMARY

Measurements generated from 1989 and 1997 samples of Fernald's Silo 3 were statistically analyzed. The measurements included chemical compositions and Environmental Protection Agency (EPA) Toxic Characteristic Leaching Procedure (TCLP) results. A statistical investigation into drum to drum variation versus sample to sample variation (including analytical variation) was conducted for each analyte for the more recent samples.

The data for each analyte were used to generate an upper tolerance limit on possible measurements of the analyte from future samples of this silo under assumptions of normal and lognormal distributions for these measurement populations.

For the 1997 samples of Silo 3 waste, drum to drum variation is statistically significant for about half of the chemical species. This is based on the analyses of 4 samples collected from Drum W173689 and 5 samples collected from Drum W173696. The TCLP leachate results for this same material indicated significant drum to drum variation for Ba, Hg, and Se but not for Ag, As, Cd, Cr, and Pb.

Statistical analysis of the EPA Toxicity results from the 1989 samples indicated that most of the distributions appear to be approximately lognormal. The leaching data from the current (1997) samples were combined with the 1989 results, and an upper tolerance limit was calculated for each analyte under assumptions of a normal and a lognormal distribution. The limits on the leachate concentrations calculated for the lognormal distribution are higher than those calculated assuming a normal distribution.

INTRODUCTION

The Savannah River Technology Center (SRTC) received two drums (W173689 and W173696) of material from Silo 3, a 1 million gallon silo at Fernald. Samples were taken from the drums and analyzed for chemical composition and radionuclides. In addition, each of the samples was subjected to the Environmental Protection Agency (EPA) Toxic Characteristic Leaching Procedure (TCLP).

The chemical composition measurements and the TCLP results are statistically reviewed in this memorandum. Sources of variation (sample versus analytical) are investigated where possible, and their contributions to the variations in the measurements are estimated. Data from Silo 3 samples taken in 1989 are combined with the most recent results, and the total set of data are used to determine (based upon assumptions of normality and random sampling) upper tolerance limits on the concentrations of chemical species of interest.

The statistical review was conducted using JMP® Version 4.0, a commercially available software product of SAS Institute, Inc. [1].

DISCUSSION

Silo 3 is a 1 million gallon tank used to hold waste generated at Fernald from the processing of uranium ores. The waste was placed in the silo in batches. The drums of material collected in 1997 were taken from a location along the side of the silo near the bottom. Samples collected in 1989 were cores taken from the top of the silo and may or may not represent full vertical sections from top to bottom. In the analyses that follow, it is assumed that the waste from the process batches forms the population of interest in this review and that the sample measurements available for this review are a random sample from that population.

Several samples were taken from the two drums filled in 1997. Each drum was cored in 2 locations (top to bottom). Each core was divided into a top and bottom sample. The second drum contained a plastic bag filled with material at the bottom that was not cored. This material was sampled. These samples are identified and described in Table 1.

Table 1: Sample Identifiers

Drum	Sample ID	Description of Sample Acquisition
W173689	689-1-T	Drum 689, 1st core, sampled from the top of the core
W173689	689-1-B	Drum 689, 1st core, sampled from the bottom of the core
W173689	689-2-T	Drum 689, 2nd core, sampled from the top of the core
W173689	689-2-B	Drum 689, 2nd core, sampled from the bottom of the core
W173696	696-1-T	Drum 696, 1st core, sampled from the top of the core
W173696	696-1-B	Drum 696, 1st core, sampled from the bottom of the core
W173696	696-2-T	Drum 696, 2nd core, sampled from the top of the core
W173696	696-2-B	Drum 696, 2nd core, sampled from the bottom of the core
W173696	696-GRAB	Drum 696, sample of contents of plastic bag

Chemical Compositions of the 1997 Samples

The chemical compositions of these samples are provided in Table 2. The concentrations of Table 2 are expressed in milligram per kilogram (mg/kg) units. A value that was below the detection limit of the analytical procedure used has been set to zero in Table 2.

Table 2: Chemical Composition Measurements (in mg/kg) of Drum Samples

Chemical Specie	689-1-T	689-1-B	689-2-T	689-2-B	696-1-T	696-1-B	696-2-T	696-2-B	696-GRAB
Aluminum	13800	13200	13100	13000	13500	13500	13200	13800	14700
Antimony	1.89	1.57	1.45	1.52	2.16	1.86	2.24	1.89	0.951
Arsenic	1410	1360	1320	1340	1050	990	1020	1040	1030
Barium	143	135	135	131	92.2	88.5	88.7	89.3	90.5
Beryllium	18.6	17.6	17.6	17.3	70.5	60	66.3	61.5	34.6
Boron	277	263	257	262	283	277	279	292	301
Bromide	0	0	0	0	0	0	0	172	0
Cadmium	6.47	6.03	6.12	5.92	33.5	29.1	30.5	27.5	14.9
Calcium	18100	17500	17100	17300	15400	14600	15000	15200	14600
Chloride	308	172	304	298	330	332	306	303	283
Chromium	340	323	325	317	329	321	316	323	318
Cobalt	2020	1840	1890	1810	781	762	818	908	1090
Copper	1250	1160	1160	1140	1020	1000	951	953	973
Fluoride	189	94	161	163	174	196	183	175	179
Iron	77300	48200	48100	68300	43900	43600	42700	45700	90600
Lead	678	647	633	637	381	361	376	386	400
Magnesium	34500	32700	32700	32100	34900	33800	34100	35200	34800
Manganese	7920	7510	7710	7490	7820	7870	7860	8070	9090
Mercury	58	51.8	50.5	46.2	20.7	17.2	18.8	20.6	26.2
Molybdenum	420	388	396	387	816	745	773	732	513
Nickel	2920	2680	2770	2610	975	951	1030	1160	1450
Nitrate	38300	38600	40300	38800	37500	37700	37500	36700	38600
Nitrite	11.3	13.07	15	10.3	0	0	10.4	10.3	0
Ortho-phosphate	37.1	104	98.1	0	124	117	0	0	137
Oxalate	0	0	0	0	0	0	0	0	0
Potassium	24900	21500	22000	22700	20900	22600	27700	31800	26900
Selenium	51.4	47	47.5	46	21.1	20.1	21	22	24.3
Silver	1.18	1013	1.07	1.1	1.43	1.28	1.32	1.16	0.758
Sodium	66500	53500	57500	55900	52500	59300	70100	77500	59800
Strontium	74.9	70.4	70.3	69.5	85.5	83.6	81.4	83.3	82.1
Sulfate	74000	71700	71000	71900	63300	71200	62300	64200	67200
Thallium	2.84	3.1	2.86	2.78	3.48	3.02	2.74	2.31	1.22
Tin	8.86	8.41	8.65	8.1	8.36	8.21	7.99	8.06	7.16
Titanium	141	134	134	133	216	216	196	191	176
Uranium	599	560	560	542	440	435	419	451	462
Vanadium	300	288	283	286	917	957	706	635	582
Zinc	412	393	386	385	454	454	411	431	461

Figure A1 in the Appendix provides a plot of these data by drum with the696-GRAB sample, the sample taken from the plastic bag found in drum 696, shown separately. For some of the analytes, there appears to be more variation between the two drums than among the samples from a single drum; for other analytes this is not the case. For some analytes, the 696-GRAB sample appears to be different from the other drum 696 samples; for other analytes this is not the case.

Figure A2 in the Appendix provides estimates of variance components for (i.e., estimates of the variability contributions from) drum and sample (including analytical). The estimates are obtained from the core sample data of the drums via a random-effects model that includes a random variable representing drum and a residual random variable[1]. The residual random variable represents both sample to sample variation as well as analytical variation. The random variables are assumed to have zero means and unknown variances, and the variances are the parameters to be estimated from the statistical analysis.

An objective of the analysis in Figure A2 is to determine if the drum-to-drum variation for an analyte is statistically significant as compared to the sample-to-sample (including analytical) variation for that analyte. The objective is met for each analyte by the "**Test wrt Random Effects**" sections of the exhibit. If the "**Prob>F**" value shown there is less than 0.05, then the drum-to-drum component of variance is statistically significant (at a 5% significance level). These results are summarized in Table 3.

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[1] Estimates of the variance components were also conducted with the 696-Grab sample results included in the data set. The effects of including this additional sample on the conclusions are indicated as part of Figure A2. Overall, no dramatic changes to the conclusions result from the inclusion of this sample in the analyses.

Table 3: Estimates of Variance Components for the Chemical Composition Measurements from the Drum Core Samples

	Variance Components			Comments (Drum Variance Statistically Significant at alpha, α, = 0.05)	Total	Mean (mg/kg)	% Relative
	Drum	Sample/Analytical	Total		Standard	of the	Standard
Chemical Specie	Variance	Variance	Variance		Deviation	Samples	Deviation
Aluminum	1666.667	94583.33	96250	Drum Variance Not Statistical Significant	310.242	13387.5	2.3%
Antimony	0.08316	0.037158	0.120319	Significant ($p = 0.0197$)	0.347	1.8225	19.0%
Arsenic	55004.17	1095.833	56100	Significant ($p < 0.0001$)	236.854	1191.5	19.9%
Barium	1069.468	14.14125	1083.609	Significant ($p < 0.0001$)	32.918	112.8375	29.2%
Beryllium	1092.227	11.5725	1103.799	Significant ($p < 0.0001$)	33.223	41.175	80.7%
Boron	147.2708	58.91667	206.1875	Significant ($p = 0.0161$)	14.359	273.75	5.2%
Bromide	0	3698	3698	Drum Variance Not Statistical Significant	60.811	21.5	282.8%
Cadmium	287.5418	3.273283	290.8151	Significant ($p < 0.0001$)	17.053	18.1425	94.0%
Calcium	2963333	151666.7	3115000	Significant ($p = 0.0001$)	1764.936	16275	10.8%
Chloride	545.625	2282.625	2828.25	Drum Variance Not Statistical Significant	53.181	294.125	18.1%
Chromium	0	54.6875	54.6875	Drum Variance Not Statistical Significant	7.395	324.25	2.3%
Cobalt	5737963.2	6400.458	580196.6	Significant ($p < 0.0001$)	761.706	1353.625	56.3%
Copper	18854.42	1806.833	20661.25	Significant ($p = 0.0006$)	143.740	1079.25	13.3%
Fluoride	239	874.125	1113.125	Drum Variance Not Statistical Significant	33.364	166.875	20.0%
Iron	1.09E+08	1.09E+08	2.18E+08	Drum Variance Not Statistical Significant	14755.677	52225	28.3%
Lead	37129.83	265.7917	37395.63	Significant ($p < 0.0001$)	193.379	512.375	37.7%
Magnesium	935833.3	756666.7	1692500	Significant ($p =0.0506$)	1300.961	33750	3.9%
Manganese	23995.83	26529.17	50525	Drum Variance Not Statistical Significant	224.778	7781.25	2.9%
Mercury	518.3252	13.27917	531.6044	Significant ($p < 0.0001$)	23.057	35.475	65.0%
Molybdenum	67786.04	808.9583	68595	Significant ($p < 0.0001$)	261.906	582.125	45.0%
Nickel	1469000	13310.33	1482311	Significant ($p < 0.0001$)	1217.502	1887	64.5%
Nitrate	1237500	495000	1732500	Significant ($p = 0.0161$)	1316.245	38175	3.4%
Nitrite	21.22877	19.99253	41.2213	Drum Variance Not Statistical Significant	6.420	8.7962	73.0%
Ortho-phosphate	0	2757.177	2757.177	Drum Variance Not Statistical Significant	52.509	60.025	87.5%
Oxalate	All values were reported as zero (i.e., all were below detection limits).				0.000	0	NA
Potassium	1067083	13432917	14500000	Drum Variance Not Statistical Significant	3807.887	24262.5	15.7%
Selenium	361.7021	3.102917	364.805	Significant ($p < 0.0001$)	19.100	34.5125	55.3%
Silver	0	127942.8	127942.8	Drum Variance Not Statistical Significant	357.691	127.6925	280.1%
Sodium	1642500	77930000	79572500	Drum Variance Not Statistical Significant	8920.342	61600	14.5%
Strontium	73.01292	4.409583	77.4225	Significant ($p = 0.0002$)	8.799	77.3625	11.4%
Sulfate	21554167	9003333	30557500	Significant ($p = 0.0174$)	5527.884	68700	8.0%
Thallium	0	0.09795	0.09795	Drum Variance Not Statistical Significant	0.313	2.89125	10.8%
Tin	0.044525	0.0669	0.111425	Drum Variance Not Statistical Significant	0.334	8.33	4.0%
Titanium	2374.458	93.29167	2467.75	Significant ($p < 0.0001$)	49.676	170.125	29.2%
Uranium	8226.104	377.5833	8603.688	Significant ($p < 0.0001$)	92.756	500.75	18.5%
Vanadium	129250.6	12418.25	141668.8	Significant ($p = 0.0006$)	376.389	546.5	68.9%
Zinc	872.8333	293.1667	1166	Significant ($p = 0.0115$)	34.147	415.75	8.2%

As seen in Table 3, drum-to-drum variation is statistically significant for more than half of the analytes. It may be the case that these drums were filled by material from different process batches. This could explain the additional drum to drum variation for these results, variation beyond that seen sample to sample.

Chemical Compositions of the 1989 Samples

Historical data (from 11 silo samples taken and analyzed in 1989) were also available for this statistical review. It is assumed that these 11 samples were taken from various locations of Silo 3, and, as a result, their measurements provide an opportunity for variations in the contents of the silo to be revealed. The chemical composition measurements of these samples are provided in Table 4.

Table 4: Chemical Composition Measurements (in mg/kg) of Historical Samples

Chemical Specie	S3-NEABC	S3-NW-A	S3-NW-B	S3-NW-C	S3-NW-C3	S3-NW-ABC	S3-SE-A	S3-SE-B	S3-SE-B4	S3-SE-C	S3-SEABC
Aluminum	17500	10800	20800	14800	13500	15300	21300	18000	23700	18000	15800
Antimony	4	5.7	5.2	5.5	5.8	5.5	5.2	4.7	5.9	5.7	4.7
Arsenic	1980	532	1460	1420	1010	1060	1380	2450	6380	1610	2200
Barium	185	118	319	142	118	215	297	253	194	332	210
Beryllium	26.4	10	25.2	31.2	13.9	16.6	20.8	20.6	35.1	39.9	26.5
Boron	.	.	.	.	.	.	.	.	.	.	.
Bromide	.	.	.	.	.	.	.	.	.	.	.
Cadmium	52.7	21.5	45.5	69.8	24.2	35.1	41.7	60.3	204	40.1	62.4
Calcium	25900	21300	39900	26200	25600	29900	39500	33100	23300	32600	25800
Chloride	.	.	.	.	.	.	.	.	.	.	.
Chromium	221	170	335	560	443	236	260	171	139	421	213
Cobalt	1350 .		2190	2800	3520	2950	2580	1100	1870	1340	1340
Copper	2280	1620	2140	2760	1640	2010	2020	2430	7060	1610	2440
Fluoride	.	.	.	.	.	.	.	.	.	.	.
Iron	23800	28200	67600	45000	40000	37800	41700	26200	13900	60400	31200
Lead	1750	1510	1130	1800	1960	1330	1700	1440	4430	646	1310
Magnesium	52800	44800	72400	71400	80900	58100	74400	62400	38200	44900	44100
Manganese	2780	2700	5790	5940	5290	3970	5200	3610	2420	6500	3980
Mercury	80	690	100	80	100	300	100	100	300	300	300
Molybdenum	.	.	.	.	.	.	.	.	.	.	.
Nickel	1970	6170	3150	3040	3830	4230	3280	1200	2280	1810	1760
Nitrate	. .	.	.	.	.	.	.	.	.	.	.
Nitrite	.	.	.	.	.	.	.	.	.	.	.
Ortho-phosphate	.	.	.	.	.	.	.	.	.	.	.
Oxalate	.	.	.	.	.	.	.	.	.	.	.
Potassium	7340	3300	13600	3740	1300	6690	5310	3880	4520	22800	7360
Selenium	101	349	192	204	186	254	159	108	122	129	105
Silver	16.1	14.9	20.2	13.3	9.5	17.4	23.8	21.5	14.8	9.2	14.3
Sodium	39000	22900	39500	51700	27000	30400	30100	43100	38100	44100	31200
Strontium	.	.	.	.	.	.	.	.	.	.	.
Sulfate	.	.	.	.	.	.	.	.	.	.	.
Thallium	3.1	7.2	11.9	5.5	4	13.7	10	37.6	73.9	6.5	35.8
Tin	.	.	.	.	.	.	.	.	.	.	.
Titanium	.	.	.	.	.	.	.	.	.	.	.
Uranium	.	.	.	.	.	.	.	.	.	.	.
Vanadium	3040	499	1270	2540	418	1040	1180	2030	4550	1420	2030
Zinc	306	301	563	672	449	397	497	361	387	637	380

Figure A3 provides histograms of the historical data. (These results do not include the drum samples.) The distributions for some of the measurements appear to be somewhat bell-shaped or normal while others appear to be closer to a lognormal. Even with so few observations available (~11) for each chemical specie, statistical tests for normal and lognormal distributions are possible. Such tests were conducted for these measurements using JMP®, and the results are provided as part of Figure A3. They indicate that at least one of the two distributions (normal or lognormal) appear to be adequate for modeling the underlying distribution for all of the chemical species except for copper and mercury.

One of the objectives of this review is to try and offer an upper bound on the measurements, for each chemical specie, that might be generated from future samples of Silo 3. Such a bound would be provided by an upper tolerance limit on the distribution representing the possible population of measurement values. For this situation, two distributions (the normal and lognormal) are considered for each chemical specie for

which measurements are available in Table 4. As seen in this table, when data are available on a chemical specie, they are available from each of the 11 historical samples except for cobalt. This leads to 11 measurements for each chemical specie from the historical results except for cobalt, which has 10.
To increase the number of measurements used to estimate the parameters (mean and variance) of the distribution of possible, future measurements, the data from the drum samples are to be added to the historical measurements. Using all of the measurements from a drum may lead to under stating the variability of the distribution. It appears to be more appropriate to have only one measurement represent each drum as these data are combined with the historical results. Since there are 4 measurements from drum 689 and 5 from 696 (including the Grab sample), there are 20 (= 4× 5) possible ways to include samples of the two drums with the historical samples.

For each of these 20 options, 13 data points were available for each chemical specie except cobalt, which had only 12. A tolerance interval was determined for each of the 20 options for each of the chemical species for each of the two distributions under consideration (normal and lognormal). For a normally distributed random variable x, an upper tolerance limit that contains 100(1-α)% of the possible values for x with γ% confidence based upon a random sample of n observations is given by [2]

$$\bar{x} + Ks \qquad (1)$$

where $\bar{x}$ is the sample average, s is the sample standard deviation, and K is a tabulated (in [2]) constant that depend on α, γ, and n. For α=0.05 and γ=0.95, the value of K for a sample size of 13 is 2.670, and for a sample size of 12, K equals 2.736.

For the lognormal situation, the natural logarithms of the measurements for a chemical specie are determined, and these values become the random sample of the normal distribution. The tolerance limit is computed in log-space using equation (1) and then converted back using the exponential function. The tolerance limits computed from the available data are presented in Table 5. The maximums of the normal and lognormal values are also indicated in Table 5.

Table 5: Upper Tolerance Limits (in mg/kg) for Normal and Lognormal Sets of Measurements by Chemical Specie
(95% coverage with 95% confidence)

	Normal	Lognormal	Maximum
Aluminum	26527	29459	29459
Antimony	8.6	14.1	14
Arsenic	5739	7269	7269
Barium	416	569	569
Beryllium	68.6	91.6	92
Cadmium	183	343	343
Calcium	47624	57460	57460
Chromium	624	823	823
Cobalt	4288	6281	6281
Copper	6365	7361	7361
Iron	78907	112548	112548
Lead	4202	6796	6796
Magnesium	98562	119506	119506
Manganese	9803	13166	13166
Mercury	684	1735	1735
Nickel	6563	9885	9885
Potassium	35309	79160	79160
Selenium	385	902	902
Silver	831	813	831
Sodium	79012	92099	92099
Thallium	72.1	162.6	163
Vanadium	4874	10917	10917
Zinc	759	849	849

For most of these data, an assumption of an under-lying lognormal for the measurements of a chemical specie leads to a larger upper bound for that specie. As an illustration of the interpretation of the values in Table 5, consider aluminum. Table 5 indicates that if a normal distribution provides an adequate representation of the set of all possible measurements that one might generate for aluminum from samples taken from Silo 3 and analyzed using the current methods and if the data available is a random sample from that distribution, then the value of 26527 mg/kg will bound 95% of the possible aluminum measurements with 95% confidence.

TCLP Results

Both the drum samples and the historic samples were subjected to the Environmental Protection Agency (EPA) Toxic Characteristic Leaching Procedure (TCLP). A set of analytes was generated from these tests, and the results for the analytes of interest are presented in Table 6.

Table 6: TCLP Results (in mg/L) for 1997 and 1989 Samples

Sample	TCLP Arsenic	TCLP Barium	TCLP Cadmium	TCLP Chromium	TCLP Lead	TCLP Mercury	TCLP Selenium	TCLP Silver
689-1-T	0.0322	0.23	0.0416	9.12	0.001	0.000191	1.71	0.00995
689-1-B	0.0608	0.224	0.0235	8.75	0.0249	0.000428	1.72	0.00188
689-2-T	0.0417	0.223	0.0256	8.67	0.00366	0.000315	1.74	0.00153
689-2-B	0.0405	0.227	0.0232	8.7	0.0131	0.00019	1.7	0.000137
696-1-T	0.027	0.28	0.0129	0.0162	0.0943	0.000061	0.002	0.000355
696-1-B	0.0516	0.336	0.0318	12.7	0.0179	0.000067	0.67	0.000544
696-2-T	0.0368	0.308	0.0315	11.9	0.0172	0.000132	0.704	0.00129
696-2-B	0.0495	0.346	0.0365	11.5	0.0173	0.000111	0.716	0.000137
696-GRAB	0.0354	0.351	0.0315	9.69	0.00479	0.000525	0.775	0.00123
S3-NEABC	24.2	0.64	0.561	3	0.192	0.0002	1.96	0.01
S3-NW-A	5.35	0.033	0.321	3.2	1.01	0.002	11.7	0.01
S3-NW-B	2.32	0.074	0.122	5.56	0.04	0.0002	1.31	0.01
S3-NW-C	.	0.05	0.155	0.116	0.04	0.0002	1.56	0.01
S3-NW-C3	0.05	0.156	0.108	7.69	0.04	0.0002	0.92	0.01
S3-NW-ABC	6.1	0.048	0.205	4.73	0.167	0.003	4.36	0.01
S3-SE-A	15.8	0.02	0.247	2.57	0.05	0.0002	2.24	0.01
S3-SE-B	41.5	0.045	0.679	1.79	0.258	0.0002	1.46	0.01
S3-SE-B4	2.3	0.074	6.32	0.336	0.802	0.0002	1.18	0.032
S3-SE-C	0.018	0.135	0.17	8.51	0.04	0.0002	1.2	0.01
S3-SEABC	6.65	0.081	0.471	6.26	0.073	0.0002	1.31	0.01

Figure A4 in the Appendix provides a plot of these data by drum with the696-GRAB sample, the sample taken from the plastic bag found in drum 696, shown separately. For some of the analytes, there appears to be more variation between the two drums than among the samples from a single drum; for other analytes this is not the case. For some analytes, the 696-GRAB sample appears to be different from the other drum 696 samples; for other analytes this is not the case.

Figure A5 in the Appendix provides estimates of variance components for (i.e., estimates of the variability contributions from) drum and sample (including analytical). The estimates are obtained from the core sample data of the drums via a random-effects model that includes a random variable representing drum and a residual random variable[2]. The residual random variable represents both sample to sample variation as well as analytical variation. The random variables are assumed to have zero means and unknown variances, and the variances are the parameters to be estimated from the statistical analysis.

The analysis in Figure A5 is used to determine if the drum-to-drum variation for an analyte is statistically significant as compared to the sample-to-sample (including analytical) variation for that analyte. The objective is met for each analyte by the "**Test wrt Random Effects**" sections of the exhibit. If the "Prob>F" value shown there is less than 0.05, then the drum-to-drum component of variance is statistically significant (at a 5% significance level). These results are summarized in Table 7.

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[2] Estimates of the variance components were also conducted with the 696-Grab sample results included in the data set as was done for the chemical composition measurements. The effects of including this additional sample on the conclusions are indicated as part of Figure A6. Overall, no dramatic changes to the conclusions result from the inclusion of this sample in the analyses.

Table 7: Estimates of Variance Components for the TCLP Results from the Drum Core Samples

	Variance Components			Comments (Drum Variance Statistically Significant at alpha, α, = 0.05)	Total Standard Deviation	Mean (mg/L) of the Samples	% Relative Standard Deviation
Analyte	**Drum Variance**	**Sample/Analytical Variance**	**Total Variance**				
TCLP Arsenic	0	0.000139	0.000139	Drum Variance Not Statistical Significant	0.012	0.042512	27.7%
TCLP Barium	0.004074	0.000447	0.004521	Significant (p = 0.0009)	0.067	0.27175	24.7%
TCLP Cadmium	0	0.000093	0.000093	Drum Variance Not Statistical Significant	0.010	0.028325	34.0%
TCLP Chromium	0	18.19778	18.19778	Drum Variance Not Statistical Significant	4.266	8.919525	47.8%
TCLP Lead	0.00014	0.00080	0.00094	Drum Variance Not Statistical Significant	0.031	0.02367	129.2%
TCLP Mercury	1.60E-08	7.12E-09	2.31E-08	Significant (p = 0.0197)	0.0002	0.000187	81.2%
TCLP Selenium	6.98E-01	6.07E-02	7.59E-01	Significant (p = 0.0005)	0.871	1.12025	77.8%
TCLP Silver	1.00E-06	1.00E-05	1.10E-05	Drum Variance Not Statistical Significant	0.003	0.001978	167.7%

Figure A6 provides histograms of the historical TCLP data. (These results do not include the drum samples.) Few distributions of the measurements appear to be bell-shaped or normal while most appear to be closer to a lognormal. The results of the goodness of fit tests (shown as part of Figure A6) indicate that the lognormal is the more appropriate distribution and that the measurements for all of the TCLP species except for mercury and silver are adequately modeled by the lognormal distribution.

As for the chemical composition measurements, one of the objectives of this review is to try and offer an upper bound on the TCLP measurements, for each analyte, that might be generated from future samples of Silo 3. Such a bound would be provided by an upper tolerance limit on the distribution representing the possible population of TCLP measurements. For this situation, two distributions (the normal and lognormal) are considered for each analyte for which measurements are available in Table 6. As seen in this table, when data are available on an analyte, they are available from each of the 11 historical samples except for the TCLP for arsenic. This leads to 11 measurements for each analyte from the historical results except for TCLP arsenic, which has 10.

To increase the number of measurements used to estimate the parameters (mean and variance) of the distribution of possible, future measurements, the data from the drum samples are to be added to the historical measurements. As discussed earlier, using all of the TCLP measurements from a drum may lead to under stating the variability of the distribution. It appears to be more appropriate to have only one measurement represent each drum as these data are combined with the historical results. Since there are 4 measurements from drum 689 and 5 from 696 (including the Grab sample), there are 20 (= 4× 5) possible ways to include samples of the two drums with the historical samples.

For each of these 20 options, 13 data points were available for each TCLP analyte except arsenic, which had only 12. A tolerance interval was determined using equation (1) for each of the 20 options for each of the TCLP analytes for each of the two distributions under consideration (normal and lognormal). The tolerance limits computed from the available data are presented in Table 8. The maximums of the normal and lognormal values are also indicated in Table 8.

Table 8: Upper Tolerance Limits (in mg/L) for Normal and Lognormal Sets of TCLP Measurements by Analyte

(95% coverage with 95% confidence)

Analyte	Normal	Lognormal	Maximum
TCLP Arsenic	43	2998	2998
TCLP Barium	0.612	1.258	1.258
TCLP Cadmium	5.25	12.84	12.84
TCLP Chromium	15	305	305
TCLP Lead	1.07	2.86	2.86
TCLP Mercury	0.003	0.005	0.005
TCLP Selenium	10	240	240
TCLP Silver	0.030	0.232	0.232

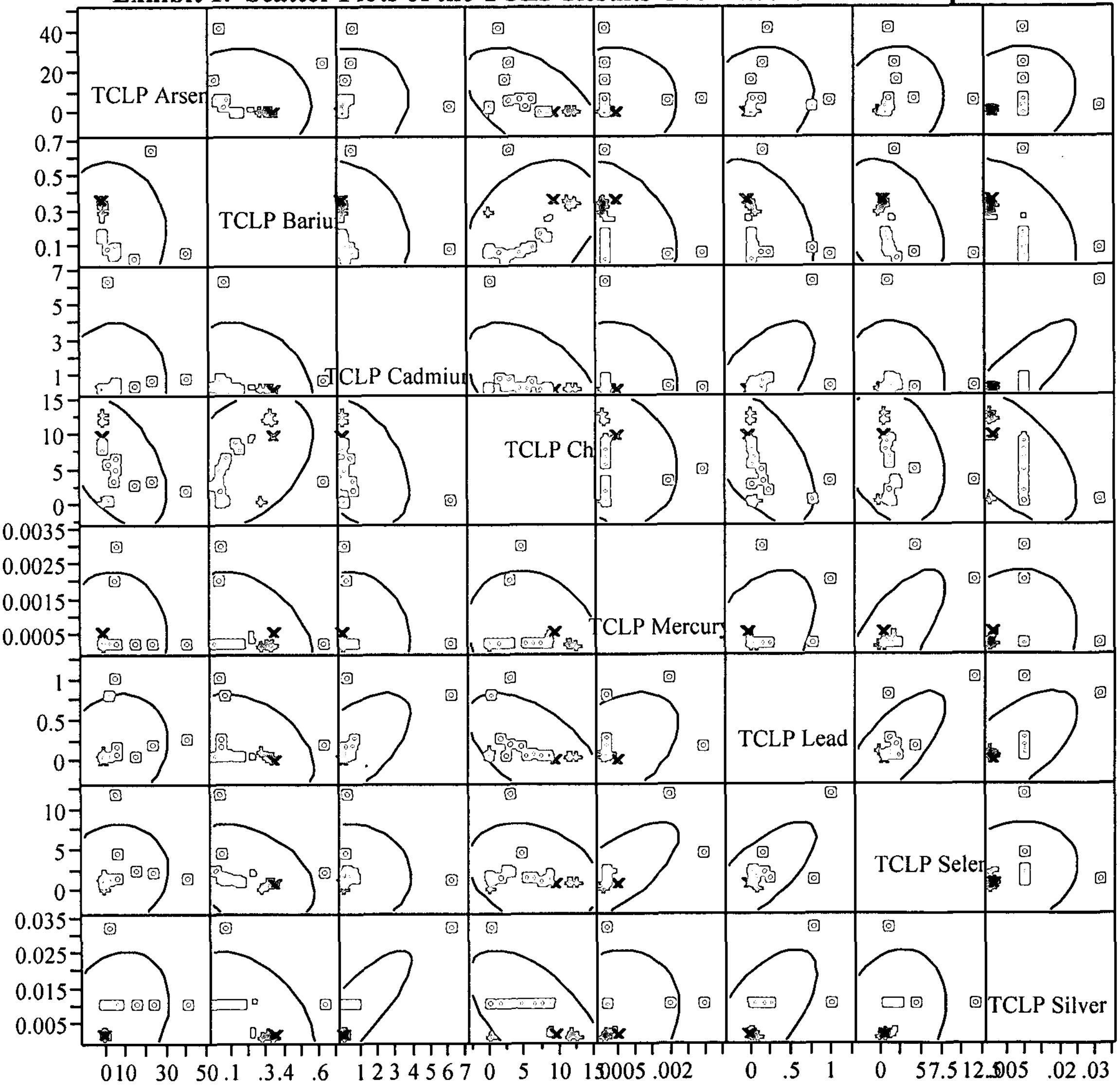
Table 8 is interpreted the same as Table 5 in the earlier discussion. The lognormal assumption provides a much more conservative bound on possible, future TCLP results from Silo 3 samples.

An additional look at the TCLP results is provided in Table 9 and the corresponding scatter plots of Exhibit 1. Table 9 provides linear correlations between each pair of TCLP analytes and Exhibit 1 is a JMP® scatter plot of these pairs of measurements.

Table 9: Linear Correlations Among the TCLP Results Over All Available Samples

	TCLP Arsenic	TCLP Barium	TCLP Cadmium	TCLP Chromium	TCLP Mercury	TCLP Lead	TCLP Selenium	TCLP Silver
TCLP Arsenic	1.0000	-0.0649	0.0523	-0.5188	0.0012	0.1707	0.0850	0.2247
TCLP Barium	-0.0649	1.0000	-0.2167	0.3488	-0.3466	-0.3424	-0.3490	-0.4328
TCLP Cadmium	0.0523	-0.2167	1.0000	-0.4598	-0.0648	0.6116	-0.0386	0.8440
TCLP Chromium	-0.5188	0.3488	-0.4598	1.0000	-0.1936	-0.5627	-0.2634	-0.5898
TCLP Mercury	0.0012	-0.3466	-0.0648	-0.1936	1.0000	0.4142	0.7187	0.1129
TCLP Lead	0.1707	-0.3424	0.6116	-0.5627	0.4142	1.0000	0.7202	0.6274
TCLP Selenium	0.0850	-0.3490	-0.0386	-0.2634	0.7187	0.7202	1.0000	0.1594
TCLP Silver	0.2247	-0.4328	0.8440	-0.5898	0.1129	0.6274	0.1594	1.0000

Exhibit 1. Scatter Plots of the TCLP Results Over All Available Samples

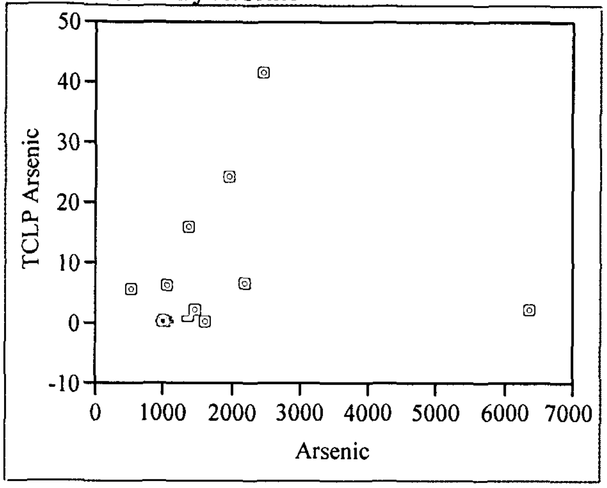


Some linear correlation is exhibited among these results. For example, the largest correlation is that between silver and cadmium, whose linear correlation exceeds 84%.

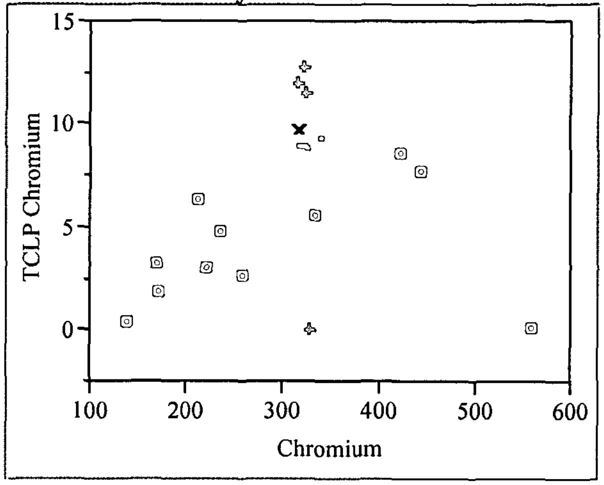
Exhibit 2 provides plots of the TCLP results for an analyte versus the concentration of that analyte in the sample.

Exhibit 2. Plots of TCLP Concentrations Versus Sample Concentrations

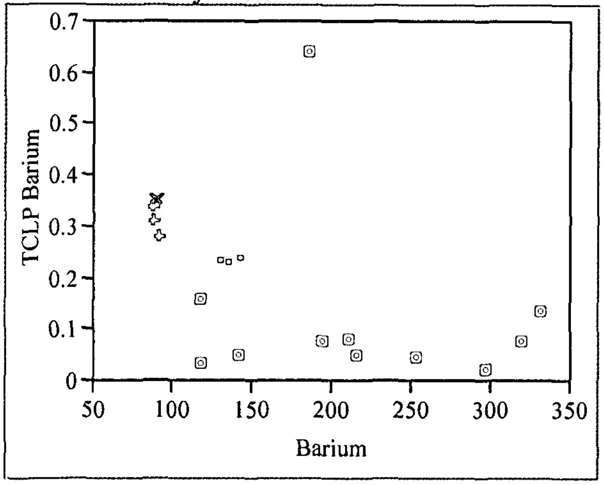
TCLP Arsenic By Arsenic



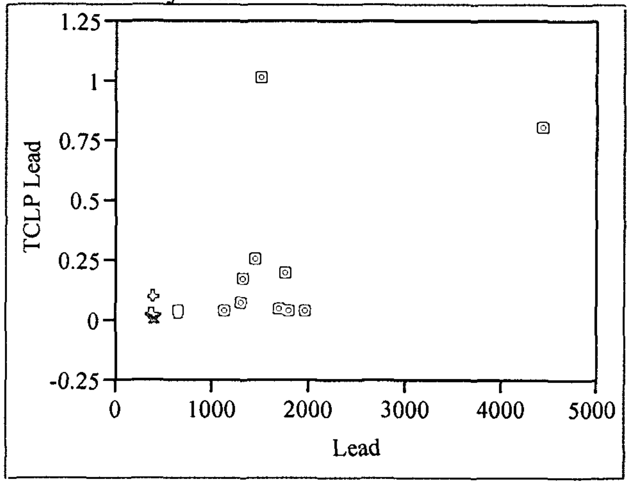
TCLP Chromium By Chromium



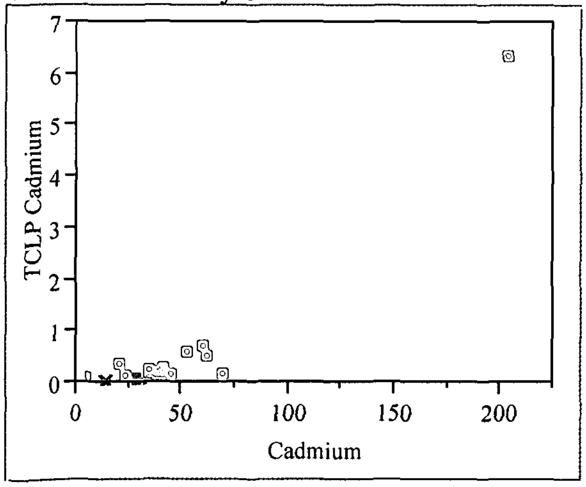
TCLP Barium By Barium



TCLP Lead By Lead



TCLP Cadmium By Cadmium



TCLP Mercury By Mercury

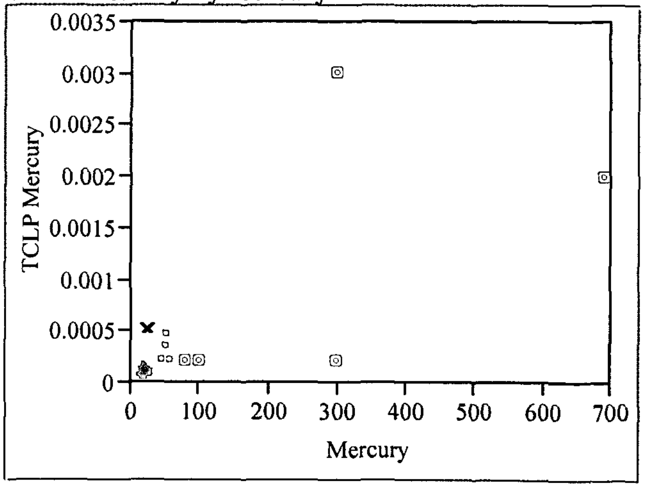
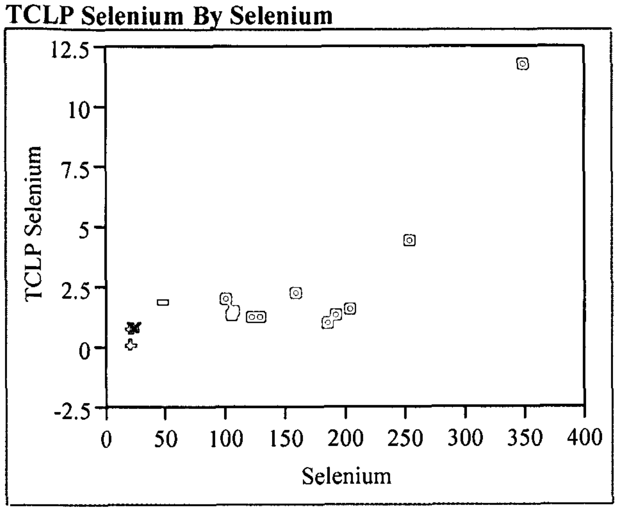
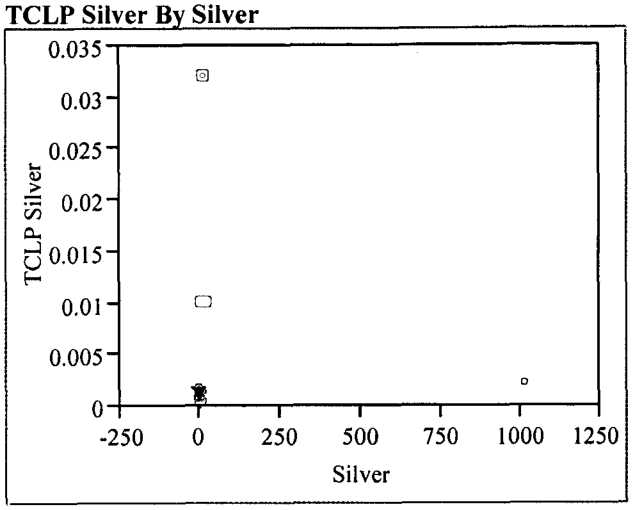


Exhibit 2. Plots of TCLP Concentrations Versus Sample Concentrations (continued)





The results from these plots suggest that for some of the TCLP analytes of interest there is an increase in the TCLP response with increases in the concentration of the corresponding analyte in the sample. This appears to be especially true for cadmium and selenium. The plots of some of other TCLP analytes (arsenic, chromium, lead, and mercury) indicate one or more points that make a clear linear correlation between the concentration in the sample and the corresponding TCLP result less certain while a few of the plots (barium and silver) suggest no correlation at all.

SUMMARY

Measurements generated from 1989 and 1997 samples ofFernald's Silo 3 were statistically analyzed. The measurements included chemical compositions and TCLP results. A statistical investigation into drum to drum variation versus sample to sample variation (including analytical variation) was conducted for each analyte for the more recent samples.

All of the data for an analyte were used to generate an upper tolerance limit on possible, future measurements of the analyte from samples of this silo under assumptions of normal and lognormal distributions for these measurement populations.

REFERENCES

[1] SAS Institute, Inc., **JMP® Statistics and Graphics Guide, JMP Version 4**, SAS Institute, Inc., Cary, NC, 2000.

[2] Montgomery, Douglas C., **Introduction to Statistical Quality Control**, John Wiley & Sons, Inc., New York, 1985.

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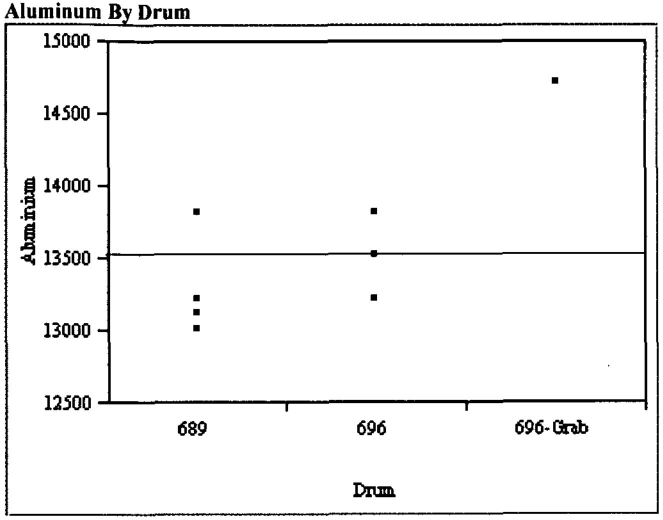
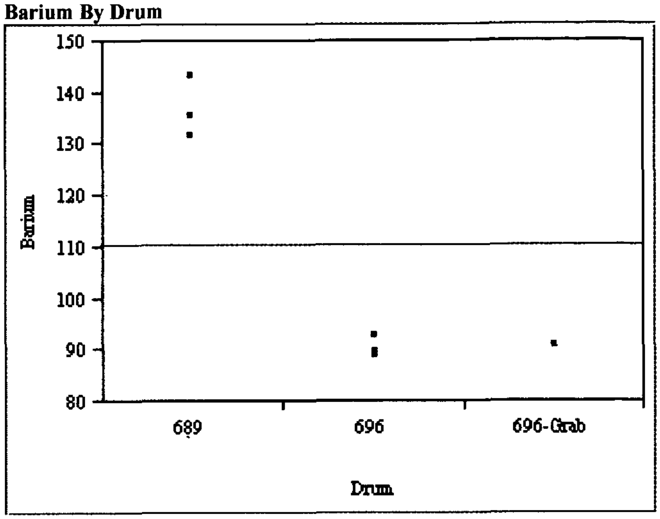
Appendix

Figure A1: Plots of the Chemical Composition Measurements by Drum ID

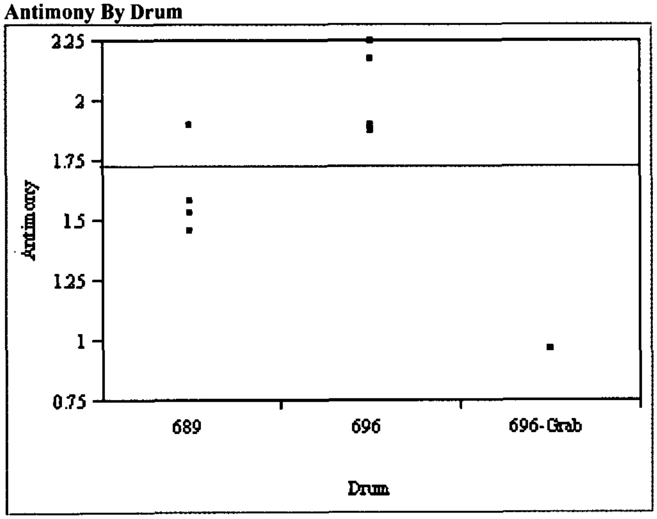
Aluminum By Drum



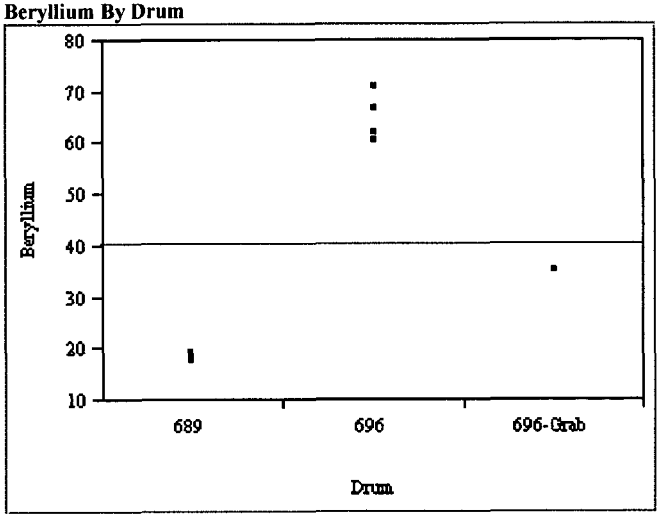
Barium By Drum



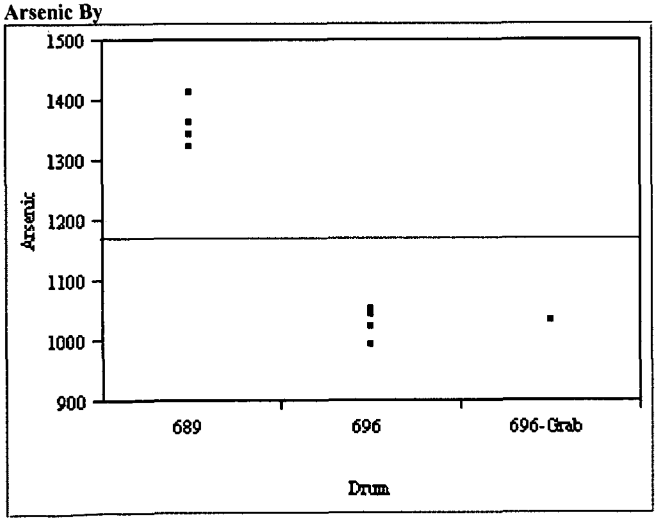
Antimony By Drum



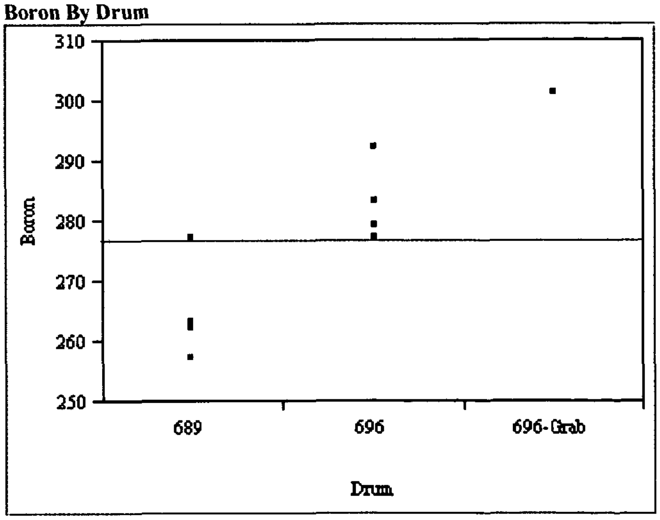
Beryllium By Drum



Arsenic By



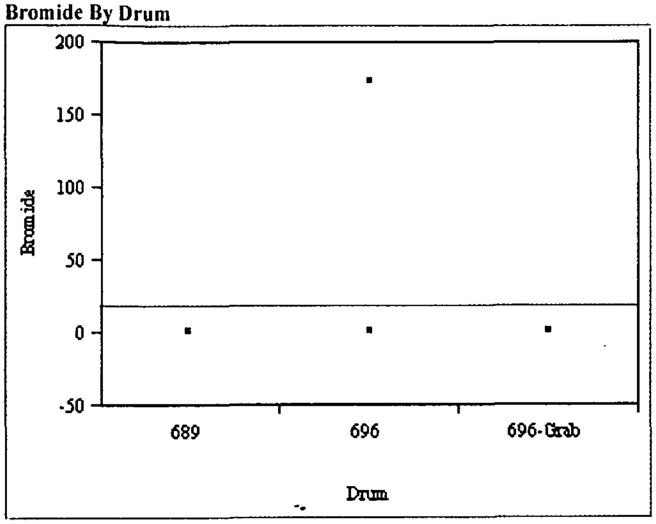
Boron By Drum



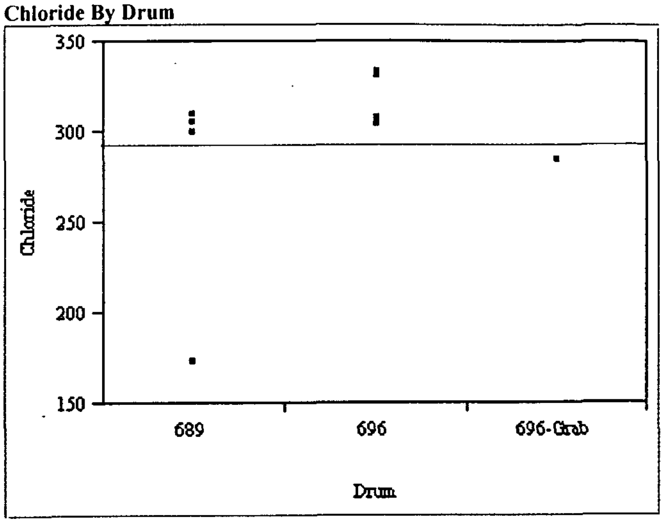
Appendix

Figure A1: Plots of the Chemical Composition Measurements by Drum ID *(continued)*

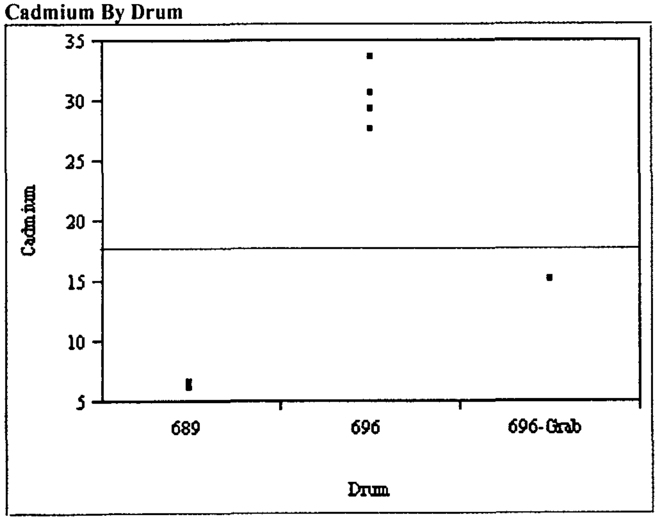
Bromide By Drum



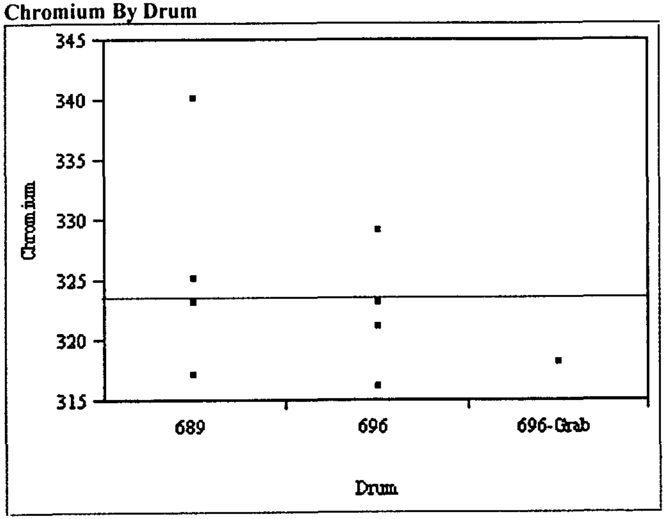
Chloride By Drum



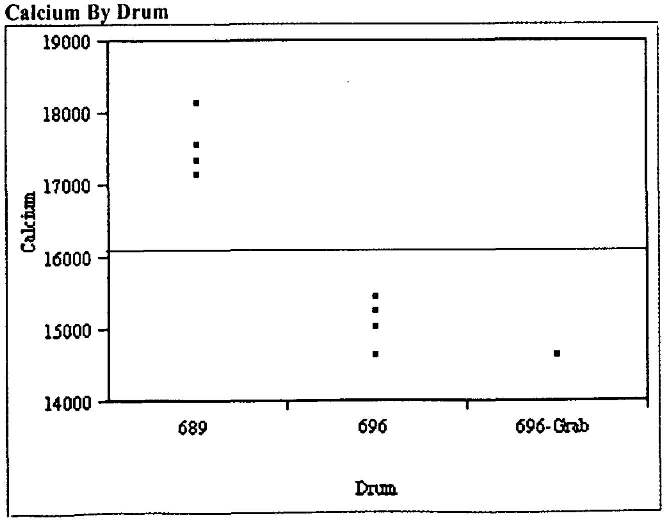
Cadmium By Drum



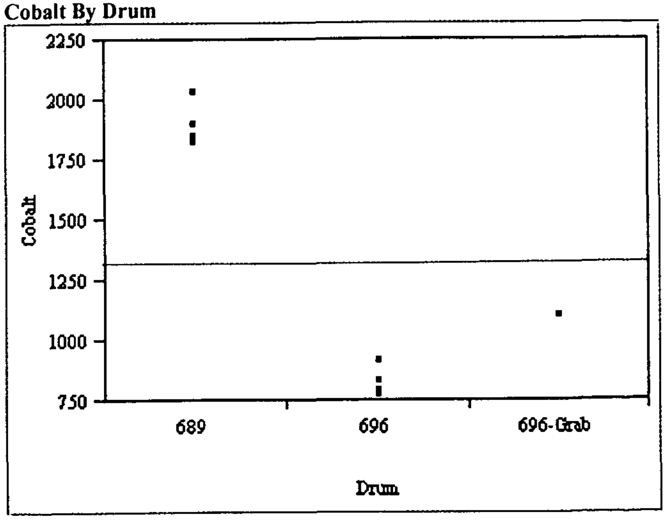
Chromium By Drum



Calcium By Drum



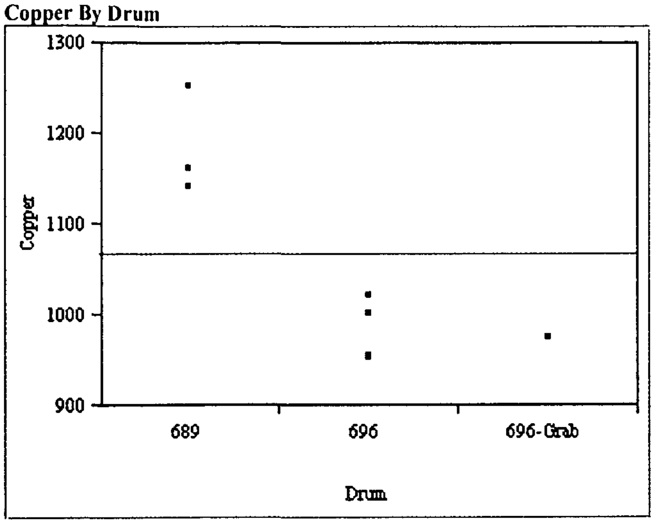
Cobalt By Drum



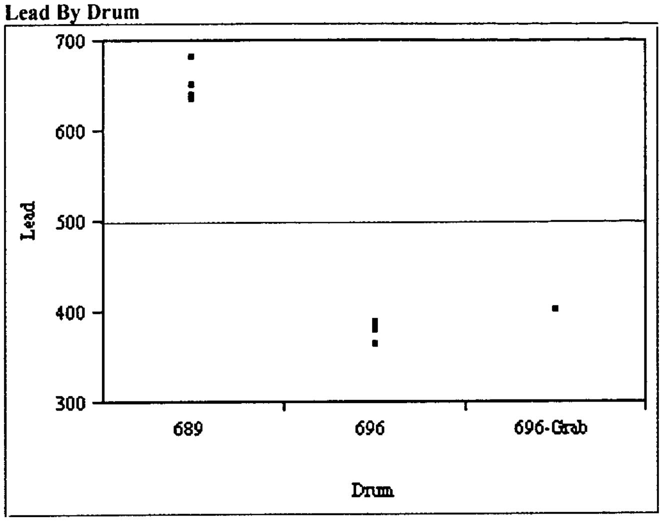
Appendix

Figure A1: Plots of the Chemical Composition Measurements by Drum ID *(continued)*

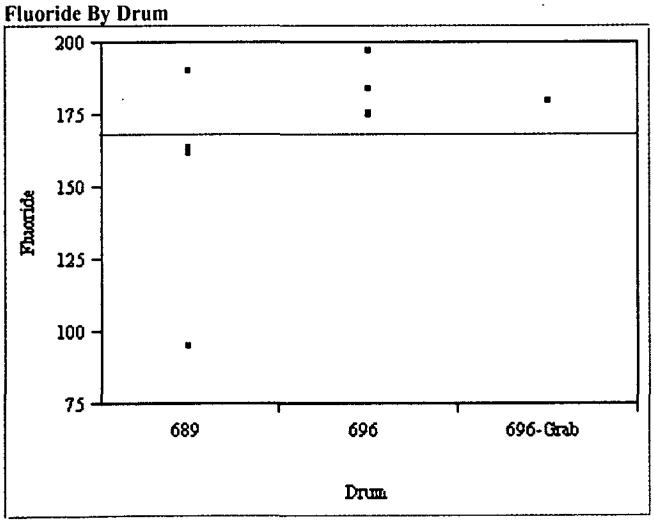
Copper By Drum



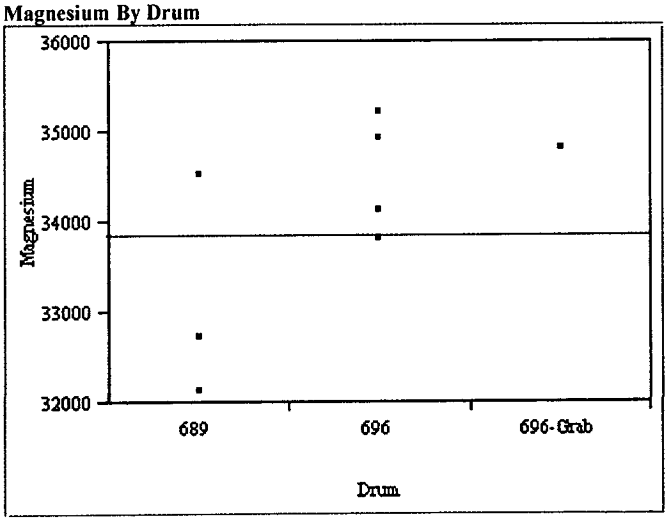
Lead By Drum



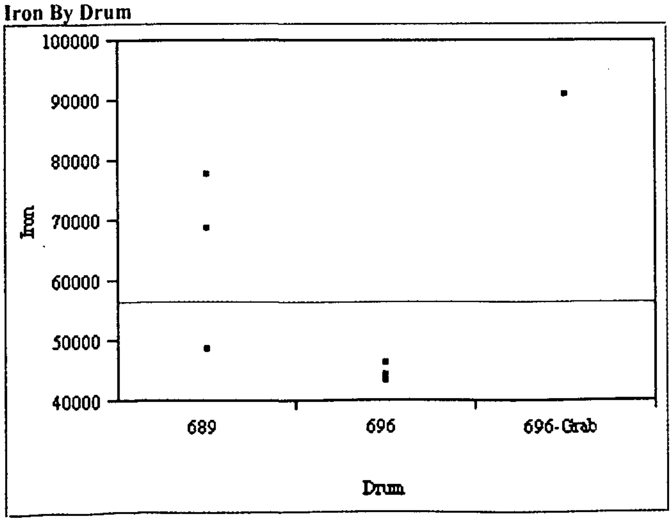
Fluoride By Drum



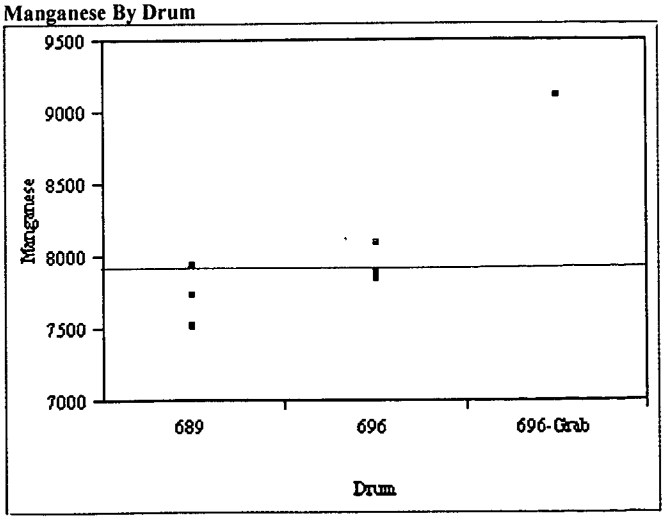
Magnesium By Drum



Iron By Drum



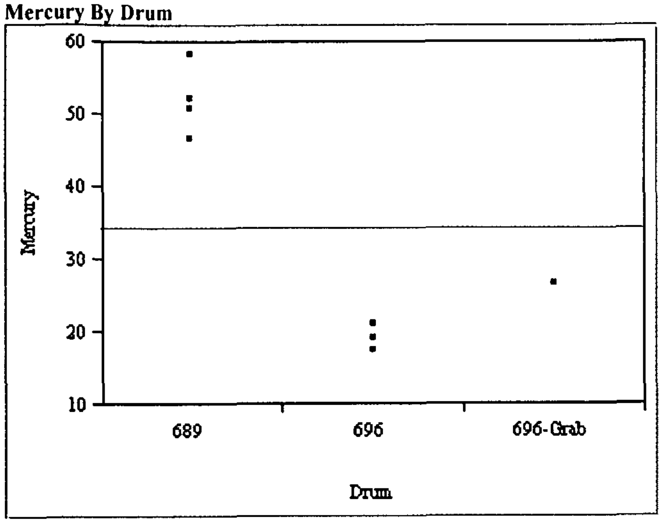
Manganese By Drum



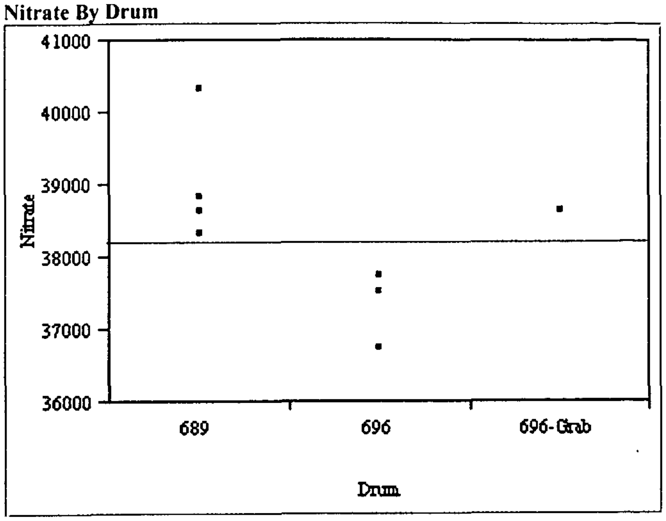
Appendix

Figure A1: Plots of the Chemical Composition Measurements by Drum ID *(continued)*

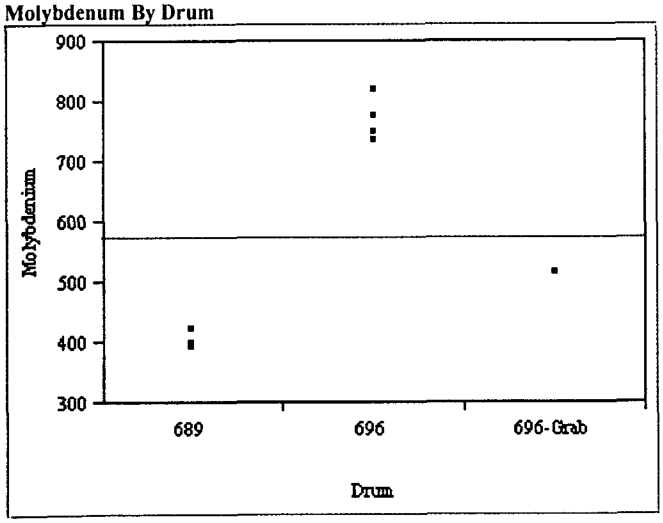
Mercury By Drum



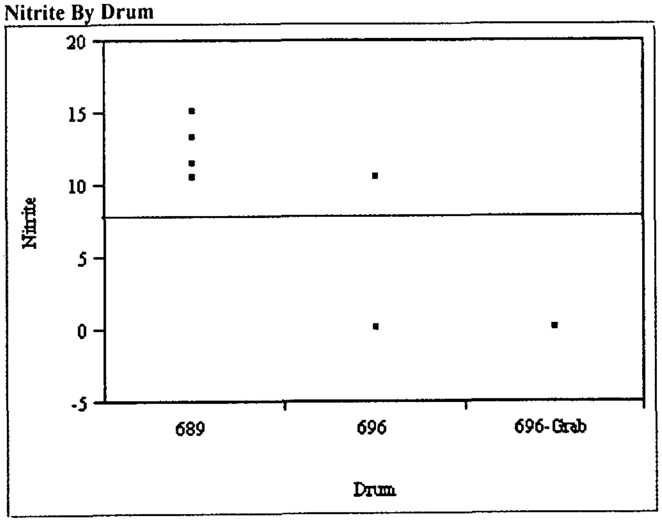
Nitrate By Drum



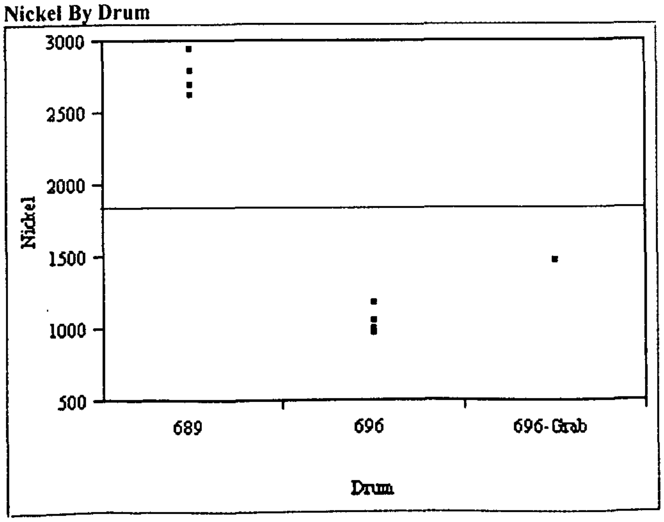
Molybdenum By Drum



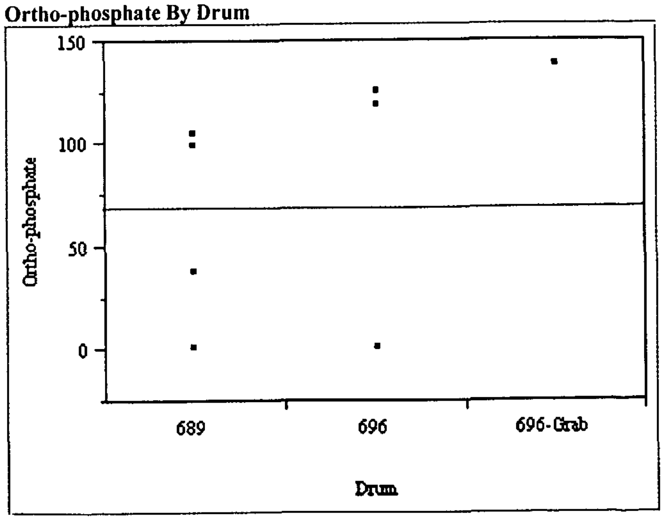
Nitrite By Drum



Nickel By Drum



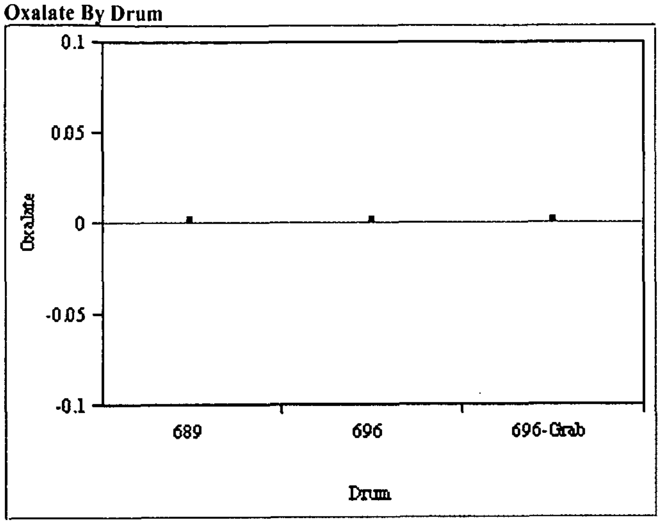
Ortho-phosphate By Drum



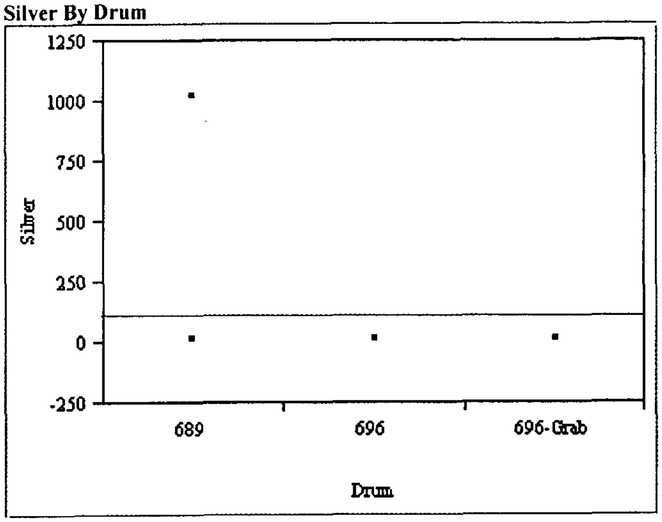
Appendix

Figure A1: Plots of the Chemical Composition Measurements by Drum ID *(continued)*

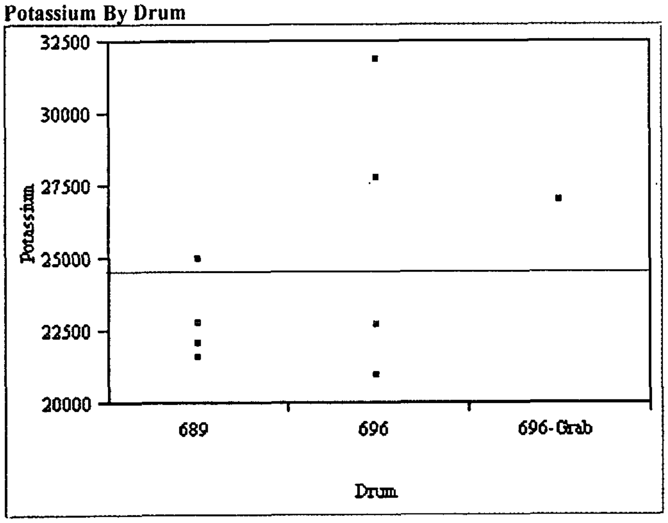
Oxalate By Drum



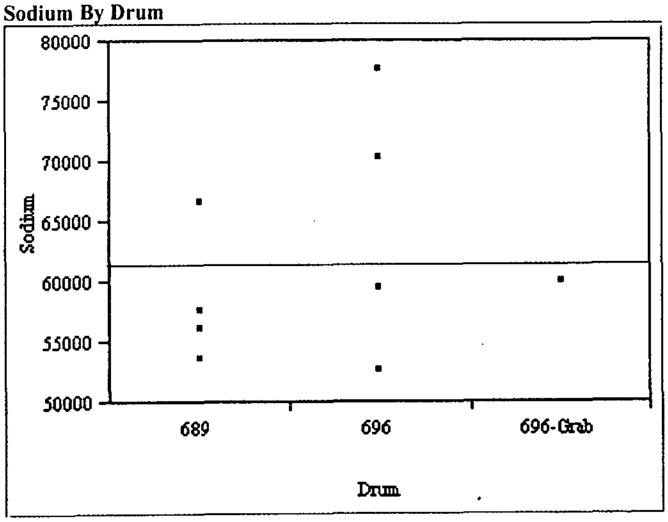
Silver By Drum



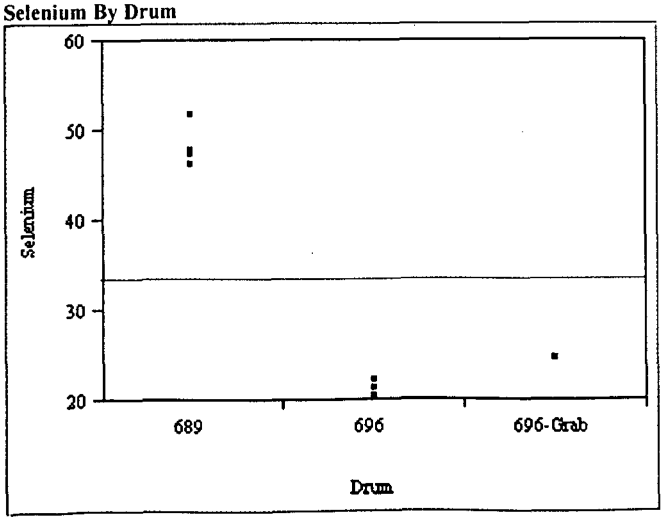
Potassium By Drum



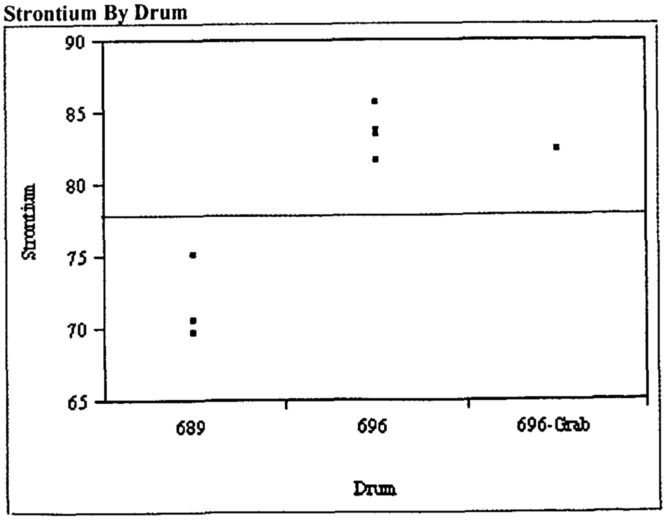
Sodium By Drum



Selenium By Drum



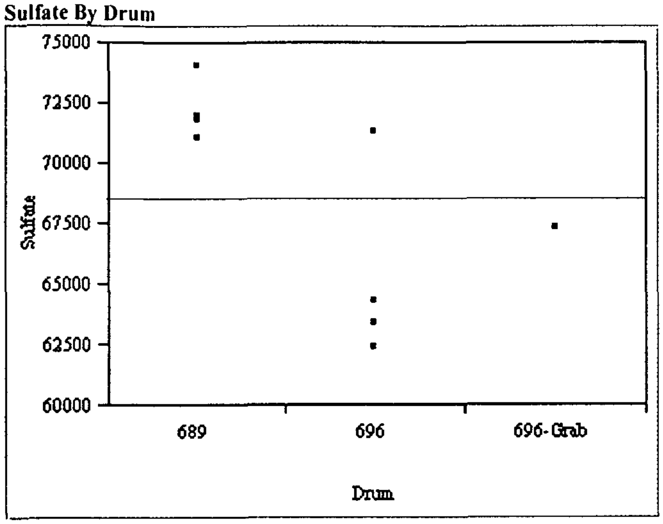
Strontium By Drum



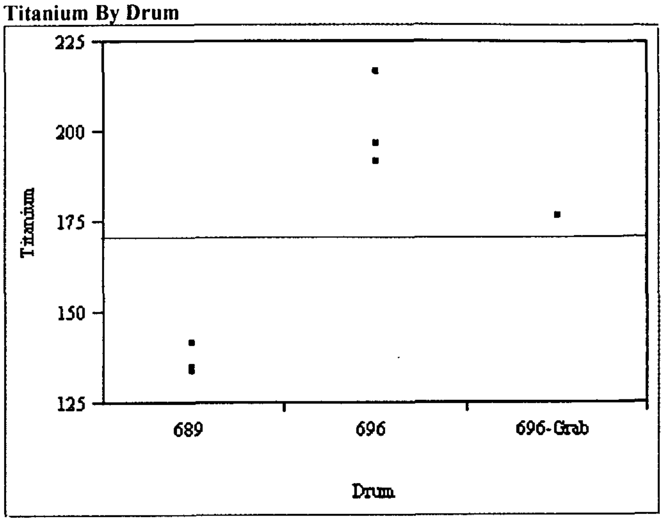
Appendix

Figure A1: Plots of the Chemical Composition Measurements by Drum ID *(continued)*

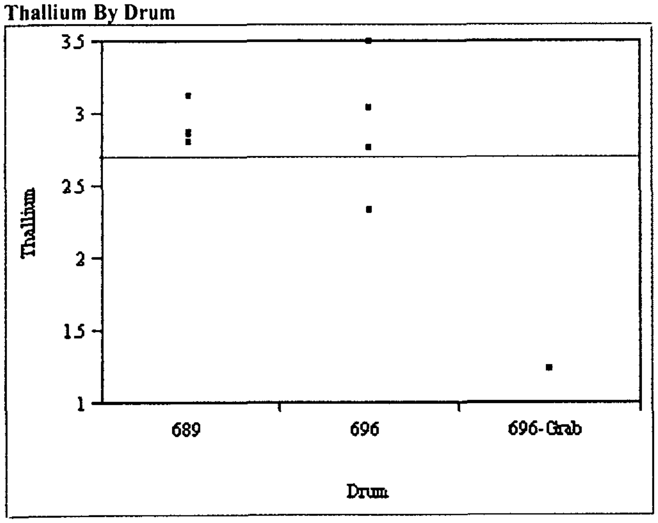
Sulfate By Drum



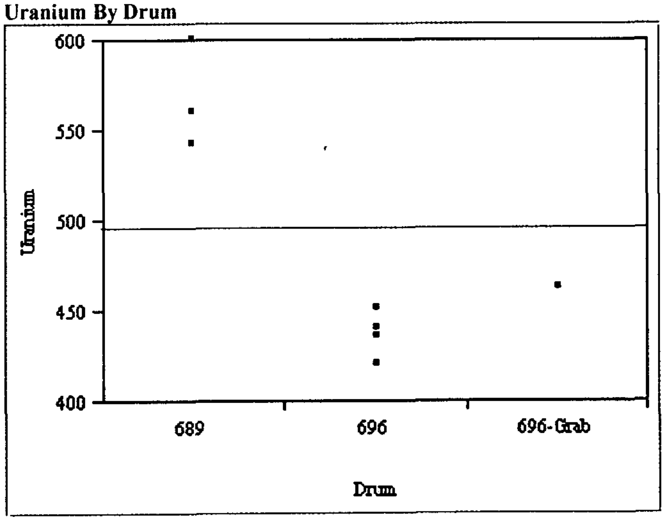
Titanium By Drum



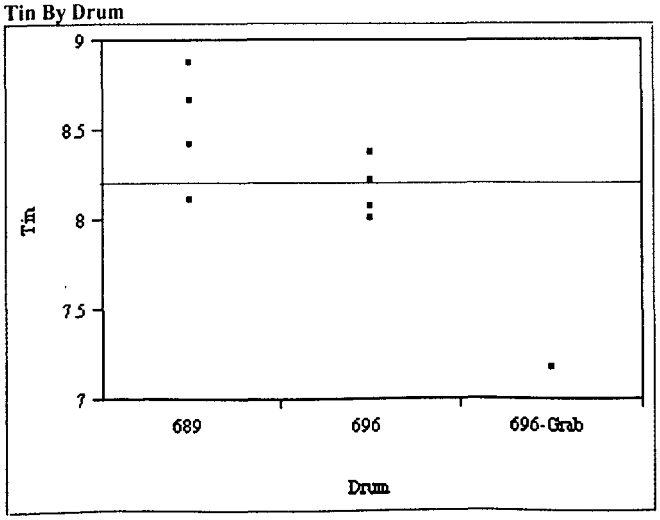
Thallium By Drum



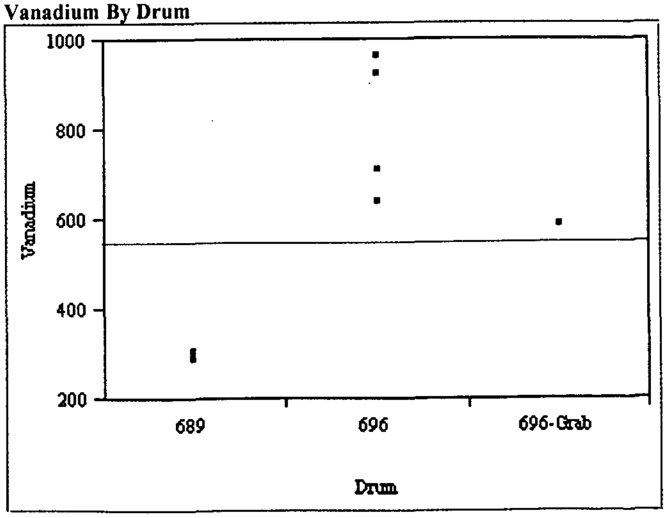
Uranium By Drum



Tin By Drum



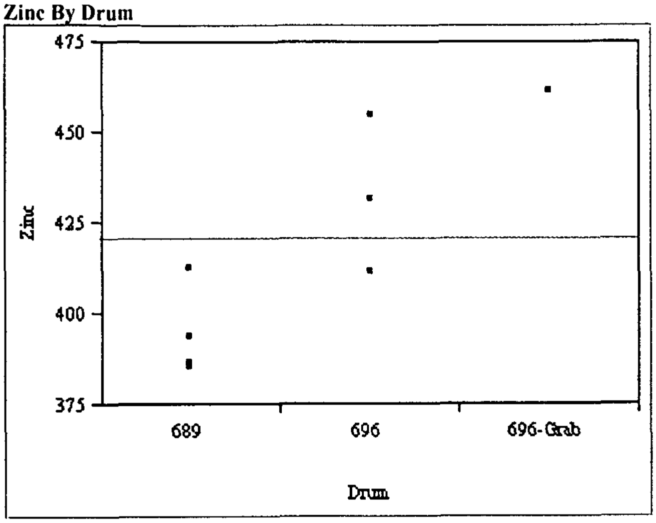
Vanadium By Drum



Appendix

Figure A1: Plots of the Chemical Composition Measurements by Drum ID *(continued)*

Zinc By Drum



Appendix

Figure A2: Investigation into Variance Components by Chemical Specie (Drum to drum versus sample to sample including analytical)

Response Aluminum

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.151402
RSquare Adj	0.009969
Root Mean Square Error	307.544
Mean of Response	13387.5
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	1666.667	1.732
Residual	94583.33	98.268
Total	96250	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	101250	101250	1	1.0705	0.3407

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Antimony

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.623872
RSquare Adj	0.561184
Root Mean Square Error	0.192765
Mean of Response	1.8225
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	0.08316	69.117
Residual	0.037158	30.883
Total	0.120319	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0.3698	0.3698	1	9.9520	0.0197

If the 696-Grab sample is included in this analysis,
the drum-to-drum variance is not statistically significant at the 5% level.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)*
(Drum to drum versus sample to sample including analytical)

Response Arsenic

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.971123
RSquare Adj	0.96631
Root Mean Square Error	33.10337
Mean of Response	1191.25
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	55004.17	98.047
Residual	1095.833	1.953
Total	56100	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	221113	221113	1	201.7757	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Barium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.980615
RSquare Adj	0.977384
Root Mean Square Error	3.760485
Mean of Response	112.8375
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	1069.468	98.695
Residual	14.14125	1.305
Total	1083.609	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	4292.01	4292.01	1	303.5100	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)*
(Drum to drum versus sample to sample including analytical)

Response Beryllium
Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.984396
RSquare Adj	0.981796
Root Mean Square Error	3.401838
Mean of Response	41.175
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	**Var Comp Est**	**Percent of Total**
Drum&Random	1092.227	98.952
Residual	11.5725	1.048
Total	1103.799	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	**SS**	**MS Num**	**DF Num**	**F Ratio**	**Prob > F**
Drum&Random	4380.48	4380.48	1	378.5250	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Boron
Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.647029
RSquare Adj	0.588201
Root Mean Square Error	7.675719
Mean of Response	273.75
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	**Var Comp Est**	**Percent of Total**
Drum&Random	147.2708	71.426
Residual	58.91667	28.574
Total	206.1875	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	**SS**	**MS Num**	**DF Num**	**F Ratio**	**Prob > F**
Drum&Random	648	648	1	10.9986	0.0161

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)* (Drum to drum versus sample to sample including analytical)

Response Bromide

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.142857
RSquare Adj	0
Root Mean Square Error	60.81118
Mean of Response	21.5
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	0	0.000
Residual	3698	100.000
Total	3698	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	3698	3698	1	1.0000	0.3559

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Cadmium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.983258
RSquare Adj	0.980468
Root Mean Square Error	1.809222
Mean of Response	18.1425
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	287.5418	98.874
Residual	3.273283	1.126
Total	290.8151	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	1153.44	1153.44	1	352.3803	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)*
(Drum to drum versus sample to sample including analytical)

Response Calcium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.929539
RSquare Adj	0.917796
Root Mean Square Error	389.444
Mean of Response	16275
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	2963333	95.131
Residual	151666.7	4.869
Total	3115000	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	1.201e7	1.201e7	1	79.1538	0.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Chloride

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.245865
RSquare Adj	0.120176
Root Mean Square Error	47.77682
Mean of Response	294.125
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	545.625	19.292
Residual	2282.625	80.708
Total	2828.25	100.000

These estimates based on equating Mean Squares to Expected Value.

Test Denominator Synthesis

Source	MS Den	DF Den	Denom MS Synthesis
Drum&Random	2282.63	6	Residual

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	4465.13	4465.13	1	1.9561	0.2114

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)* (Drum to drum versus sample to sample including analytical)

Response Chromium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.078915
RSquare Adj	-0.0746
Root Mean Square Error	7.889867
Mean of Response	324.25
Observations (or Sum Wgts)	8

Variance Component Estimates[3]

Component	Var Comp Est	Percent of Total
Drum&Random	-7.5625	-13.829
Residual	62.25	113.829
Total	54.6875	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	32	32	1	0.5141	0.5003

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Cobalt

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.983588
RSquare Adj	0.980853
Root Mean Square Error	80.00286
Mean of Response	1353.625
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	573796.2	98.897
Residual	6400.458	1.103
Total	580196.6	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	2301585	2301585	1	359.5969	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

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[3] A negative estimate for a variance component indicates its lack of statistical significance and is an artifact of the algorithms used by JMP® to conduct this estimation. The negative estimate is typically replaced by zero as was done in the Discussion section of this paper.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie ***(continued)***
(Drum to drum versus sample to sample including analytical)

Response Copper
Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.876898
RSquare Adj	0.856382
Root Mean Square Error	42.50686
Mean of Response	1079.25
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	18854.42	91.255
Residual	1806.833	8.745
Total	20661.25	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	77224.5	77224.5	1	42.7402	0.0006

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Fluoride
Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.258679
RSquare Adj	0.135126
Root Mean Square Error	29.56561
Mean of Response	166.875
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	239	21.471
Residual	874.125	78.529
Total	1113.125	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	1830.13	1830.13	1	2.0937	0.1981

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie ***(continued)***
(Drum to drum versus sample to sample including analytical)

Response Iron

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.454745
RSquare Adj	0.363869
Root Mean Square Error	10431.32
Mean of Response	52225
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	1.0892e8	50.025
Residual	1.0881e8	49.975
Total	2.1773e8	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	5.445e8	5.445e8	1	5.0040	0.0666

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Lead

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.989395
RSquare Adj	0.987628
Root Mean Square Error	16.30312
Mean of Response	512.375
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	37129.83	99.289
Residual	265.7917	0.711
Total	37395.63	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	148785	148785	1	559.7810	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie ***(continued)***
(Drum to drum versus sample to sample including analytical)

Response Magnesium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.497788
RSquare Adj	0.414086
Root Mean Square Error	869.8659
Mean of Response	33750
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	935833.3	55.293
Residual	756666.7	44.707
Total	1692500	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	4500000	4500000	1	5.9471	0.0506

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Manganese

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.434923
RSquare Adj	0.340744
Root Mean Square Error	162.8778
Mean of Response	7781.25
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	23995.83	47.493
Residual	26529.17	52.507
Total	50525	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	122513	122513	1	4.6180	0.0752

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie ***(continued)***
(Drum to drum versus sample to sample including analytical)

Response Mercury

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.96322
RSquare Adj	0.95709
Root Mean Square Error	3.644059
Mean of Response	35.475
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	518.3252	97.502
Residual	13.27917	2.498
Total	531.6044	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	2086.58	2086.58	1	157.1318	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Molybdenum

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.982465
RSquare Adj	0.979543
Root Mean Square Error	28.44219
Mean of Response	582.125
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	67786.04	98.821
Residual	808.9583	1.179
Total	68595	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	271953	271953	1	336.1769	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)* (Drum to drum versus sample to sample including analytical)

Response Nickel

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.986621
RSquare Adj	0.984391
Root Mean Square Error	115.3704
Mean of Response	1887
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	1469000	99.102
Residual	13310.33	0.898
Total	1482311	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	5889312	5889312	1	442.4616	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Nitrate

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.647059
RSquare Adj	0.588235
Root Mean Square Error	703.5624
Mean of Response	38175
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	1237500	71.429
Residual	495000	28.571
Total	1732500	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	5445000	5445000	1	11.0000	0.0161

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)*
(Drum to drum versus sample to sample including analytical)

Response Nitrite

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.466541
RSquare Adj	0.377631
Root Mean Square Error	4.471301
Mean of Response	8.79625
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	21.22877	51.500
Residual	19.99253	48.500
Total	41.2213	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	104.908	104.908	1	5.2473	0.0619

If the 696-Grab sample is included in this analysis,
the drum-to-drum variance is statistically significant at the 5% level.

Response Ortho-phosphate

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.000018
RSquare Adj	-0.16665
Root Mean Square Error	60.63086
Mean of Response	60.025
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	-918.924	-33.328
Residual	3676.102	133.328
Total	2757.177	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0.405	0.405	1	0.0001	0.9920

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)* (Drum to drum versus sample to sample including analytical)

Response Oxalate

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	.
RSquare Adj	.
Root Mean Square Error	0
Mean of Response	0
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	0	.
Residual	0	.
Total	0	.

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0	0	1	.	.

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Potassium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.180076
RSquare Adj	0.043422
Root Mean Square Error	3665.094
Mean of Response	24262.5
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	1067083	7.359
Residual	13432917	92.641
Total	14500000	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	1.77e+7	1.77e+7	1	1.3178	0.2947

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)*
(Drum to drum versus sample to sample including analytical)

Response Selenium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.987322
RSquare Adj	0.985209
Root Mean Square Error	1.76151
Mean of Response	34.5125
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	361.7021	99.149
Residual	3.102917	0.851
Total	364.805	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	1449.91	1449.91	1	467.2737	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Silver

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.142682
RSquare Adj	-0.0002
Root Mean Square Error	357.7548
Mean of Response	127.6925
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	-45.731	-0.036
Residual	127988.5	100.036
Total	127942.8	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	127806	127806	1	0.9986	0.3562

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)* (Drum to drum versus sample to sample including analytical)

Response Sodium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.153058
RSquare Adj	0.0119
Root Mean Square Error	8827.797
Mean of Response	61600
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	1642500	2.064
Residual	77930000	97.936
Total	79572500	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	8.45e+7	8.45e+7	1	1.0843	0.3379

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Strontium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.918068
RSquare Adj	0.904412
Root Mean Square Error	2.099901
Mean of Response	77.3625
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	73.01292	94.305
Residual	4.409583	5.695
Total	77.4225	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	296.461	296.461	1	67.2311	0.0002

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie ***(continued)***
(Drum to drum versus sample to sample including analytical)

Response Sulfate

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.638033
RSquare Adj	0.577705
Root Mean Square Error	3000.556
Mean of Response	68700
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	21554167	70.536
Residual	9003333	29.464
Total	30557500	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	9.522e7	9.522e7	1	10.5761	0.0174

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Thallium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.000144
RSquare Adj	-0.1665
Root Mean Square Error	0.361334
Mean of Response	2.89125
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	-0.03261	-33.295
Residual	0.130563	133.295
Total	0.09795	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0.00011	0.00011	1	0.0009	0.9775

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)*
(Drum to drum versus sample to sample including analytical)

Response Tin
Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.379022
RSquare Adj	0.275526
Root Mean Square Error	0.25865
Mean of Response	8.33
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	0.044525	39.960
Residual	0.0669	60.040
Total	0.111425	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0.245	0.245	1	3.6622	0.1042

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Titanium
Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.944857
RSquare Adj	0.935666
Root Mean Square Error	9.658761
Mean of Response	170.125
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	2374.458	96.220
Residual	93.29167	3.780
Total	2467.75	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	9591.13	9591.13	1	102.8079	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie ***(continued)***
(Drum to drum versus sample to sample including analytical)

Response Uranium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.936268
RSquare Adj	0.925646
Root Mean Square Error	19.4315
Mean of Response	500.75
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	8226.104	95.611
Residual	377.5833	4.389
Total	8603.688	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	33282	33282	1	88.1448	<.0001

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response Vanadium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.876626
RSquare Adj	0.856063
Root Mean Square Error	111.4372
Mean of Response	546.5
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	129250.6	91.234
Residual	12418.25	8.766
Total	141668.8	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	529421	529421	1	42.6325	0.0006

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A2: Investigation into Variance Components by Chemical Specie *(continued)* (Drum to drum versus sample to sample including analytical)

Response Zinc

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.682691
RSquare Adj	0.629807
Root Mean Square Error	17.12211
Mean of Response	415.75
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	872.8333	74.857
Residual	293.1667	25.143
Total	1166	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	3784.5	3784.5	1	12.9090	0.0115

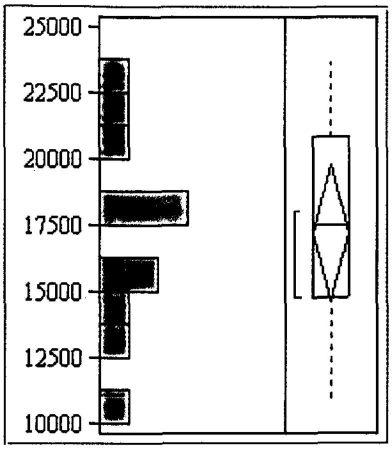
If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A3: Histograms of Historical Results by Chemical Specie

(Drum samples not included)

Aluminum



Quantiles

100.0%	Maximum	23700
99.5%		23700
97.5%		23700
90.0%		23220
75.0%	Quartile	20800
50.0%	Median	17500
25.0%	Quartile	14800
10.0%		11340
2.5%		10800
0.5%		10800
0.0%	Minimum	10800

Moments

Mean	17227.27
Std Dev	3733.12
Std Err Mean	1125.58
upper 95% Mean	19735.23
lower 95% Mean	14719.31
N	11.00

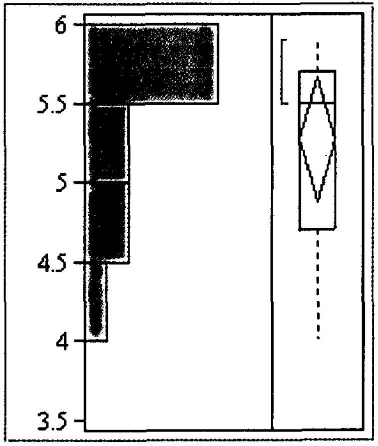
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.112628	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.983740	0.9796

Antimony



Quantiles

100.0%	maximum	5.9000
99.5%		5.9000
97.5%		5.9000
90.0%		5.8800
75.0%	quartile	5.7000
50.0%	median	5.5000
25.0%	quartile	4.7000
10.0%		4.1400
2.5%		4.0000
0.5%		4.0000
0.0%	minimum	4.0000

Moments

Mean	5.263636
Std Dev	0.585274
Std Err Mean	0.176467
upper 95% Mean	5.656831
lower 95% Mean	4.870442
N	11.000000

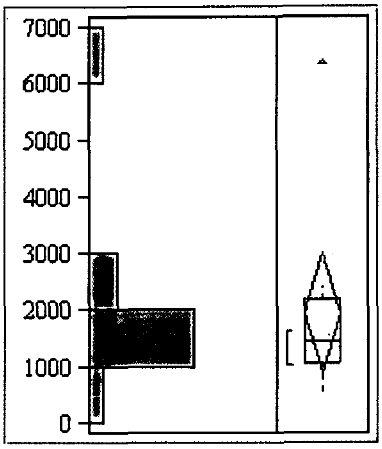
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.209282	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.892148	0.1426

Arsenic



Quantiles

100.0%	maximum	6380.0
99.5%		6380.0
97.5%		6380.0
90.0%		5594.0
75.0%	quartile	2200.0
50.0%	median	1460.0
25.0%	quartile	1060.0
10.0%		627.6
2.5%		532.0
0.5%		532.0
0.0%	minimum	532.0

Moments

Mean	1952.909
Std Dev	1567.997
Std Err Mean	472.769
upper 95% Mean	3006.310
lower 95% Mean	899.508
N	11.000

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.156763	>	0.1500

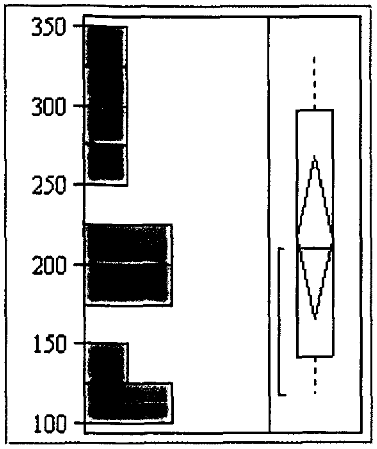
Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.681611	0.0005

Appendix

Figure A3: Histograms of Historical Results by Chemical Specie *(continued)*
(Drum samples not included)

Barium



Quantiles

100.0%	Maximum	332.00
99.5%		332.00
97.5%		332.00
90.0%		329.40
75.0%	Quartile	297.00
50.0%	Median	210.00
25.0%	Quartile	142.00
10.0%		118.00
2.5%		118.00
0.5%		118.00
0.0%	Minimum	118.00

Moments

Mean	216.6364
Std Dev	76.2604
Std Err Mean	22.9934
upper 95% Mean	267.8691
lower 95% Mean	165.4036
N	11.0000

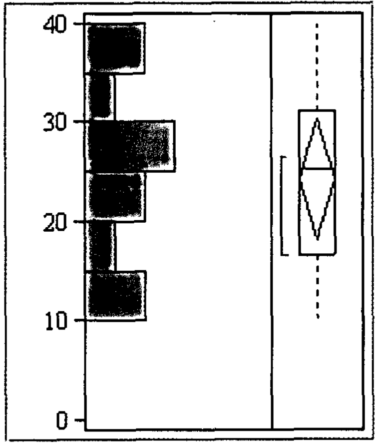
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.123020	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.935770	0.4517

Beryllium



Quantiles

100.0%	maximum	39.900
99.5%		39.900
97.5%		39.900
90.0%		38.940
75.0%	quartile	31.200
50.0%	median	25.200
25.0%	quartile	16.600
10.0%		10.780
2.5%		10.000
0.5%		10.000
0.0%	minimum	10.000

Moments

Mean	24.20000
Std Dev	9.03017
Std Err Mean	2.72270
upper 95% Mean	30.26659
lower 95% Mean	18.13341
N	11.00000

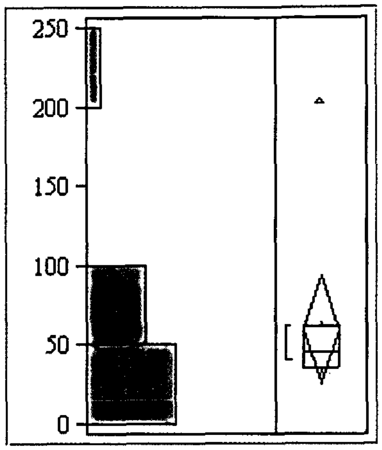
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.152421	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.984088	0.9811

Cadmium



Quantiles

100.0%	maximum	204.00
99.5%		204.00
97.5%		204.00
90.0%		177.16
75.0%	quartile	62.40
50.0%	median	45.50
25.0%	quartile	35.10
10.0%		22.04
2.5%		21.50
0.5%		21.50
0.0%	minimum	21.50

Moments

Mean	59.75455
Std Dev	50.21510
Std Err Mean	15.14042
upper 95% Mean	93.48972
lower 95% Mean	26.01937
N	11.00000

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.187664	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

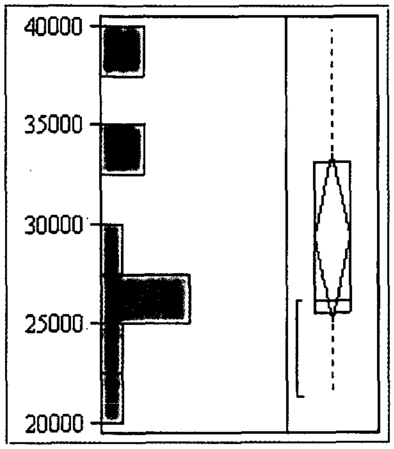
W	Prob<W
0.636076	0.0001

Appendix

Figure A3: Histograms of Historical Results by Chemical Specie *(continued)*

(Drum samples not included)

Calcium



Quantiles

100.0%	Maximum	39900
99.5%		39900
97.5%		39900
90.0%		39820
75.0%	Quartile	33100
50.0%	Median	26200
25.0%	Quartile	25600
10.0%		21700
2.5%		21300
0.5%		21300
0.0%	Minimum	21300

Moments

Mean	29372.73
Std Dev	6238.12
Std Err Mean	1880.86
upper 95% Mean	33563.58
lower 95% Mean	25181.87
N	11.00

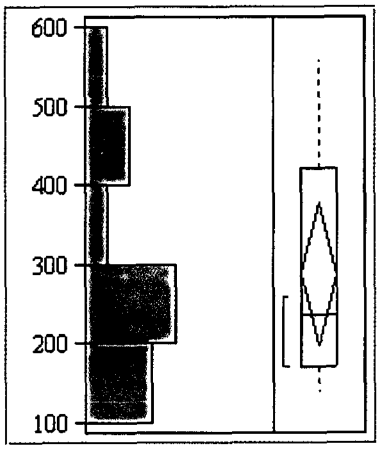
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D	Prob>D
0.222514	0.1298

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.904446	0.2003

Chromium



Quantiles

100.0%	maximum	560.00
99.5%		560.00
97.5%		560.00
90.0%		536.60
75.0%	quartile	421.00
50.0%	median	236.00
25.0%	quartile	171.00
10.0%		145.20
2.5%		139.00
0.5%		139.00
0.0%	minimum	139.00

Moments

Mean	288.0909
Std Dev	134.6562
Std Err Mean	40.6004
upper 95% Mean	378.5547
lower 95% Mean	197.6271
N	11.0000

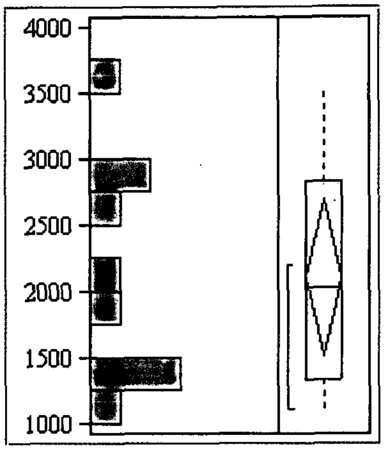
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.145032	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.897395	0.1650

Cobalt



Quantiles

100.0%	maximum	3520.0
99.5%		3520.0
97.5%		3520.0
90.0%		3463.0
75.0%	quartile	2837.5
50.0%	median	2030.0
25.0%	quartile	1340.0
10.0%		1124.0
2.5%		1100.0
0.5%		1100.0
0.0%	minimum	1100.0

Moments

Mean	2104.000
Std Dev	832.522
Std Err Mean	263.267
upper 95% Mean	2699.556
lower 95% Mean	1508.444
N	10.000

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.218956	>	0.1500

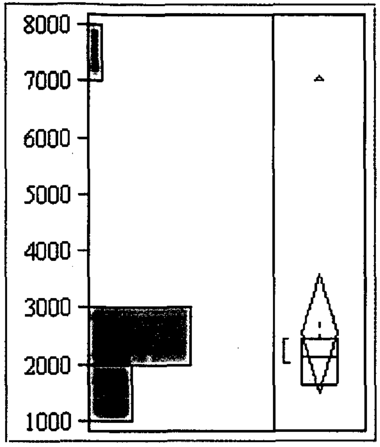
Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.922936	0.3671

Appendix

Figure A3: Histograms of Historical Results by Chemical Specie ***(continued)***
(Drum samples not included)

Copper



Quantiles

100.0%	Maximum	7060.0
99.5%		7060.0
97.5%		7060.0
90.0%		6200.0
75.0%	Quartile	2440.0
50.0%	Median	2140.0
25.0%	Quartile	1640.0
10.0%		1612.0
2.5%		1610.0
0.5%		1610.0
0.0%	Minimum	1610.0

Moments

Mean	2546.364
Std Dev	1542.746
Std Err Mean	465.155
upper 95% Mean	3582.801
lower 95% Mean	1509.926
N	11.000

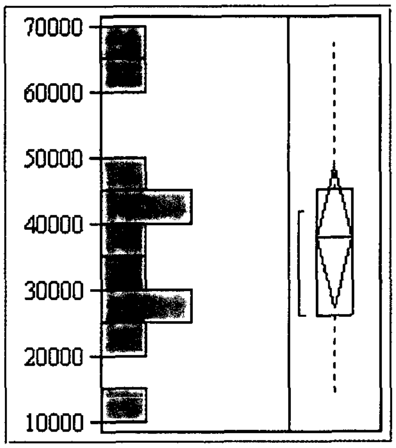
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D	Prob>D
0.263603	0.0390

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.566704	<.0001

Iron



Quantiles

100.0%	maximum	67600
99.5%		67600
97.5%		67600
90.0%		66160
75.0%	quartile	45000
50.0%	median	37800
25.0%	quartile	26200
10.0%		15880
2.5%		13900
0.5%		13900
0.0%	minimum	13900

Moments

Mean	37800.00
Std Dev	15837.23
Std Err Mean	4775.11
upper 95% Mean	48439.67
lower 95% Mean	27160.33
N	11.00

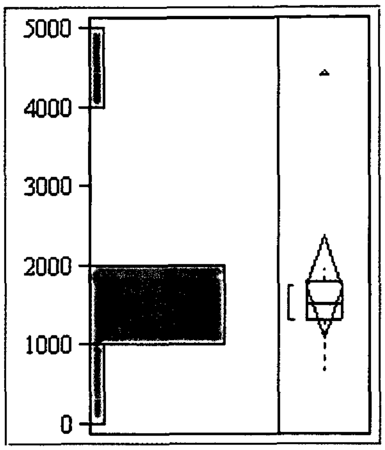
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.120984	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.957611	0.7206

Lead



Quantiles

100.0%	maximum	4430.0
99.5%		4430.0
97.5%		4430.0
90.0%		3936.0
75.0%	quartile	1800.0
50.0%	median	1510.0
25.0%	quartile	1310.0
10.0%		742.8
2.5%		646.0
0.5%		646.0
0.0%	minimum	646.0

Moments

Mean	1727.818
Std Dev	967.109
Std Err Mean	291.594
upper 95% Mean	2377.535
lower 95% Mean	1078.101
N	11.000

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.216992	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

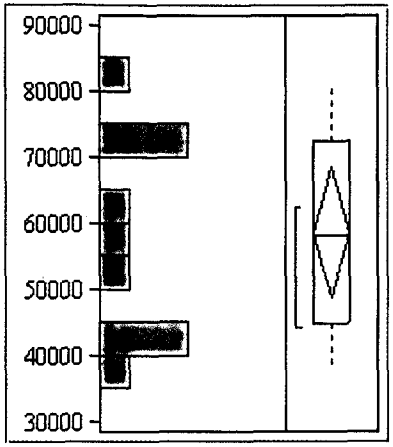
W	Prob<W
0.707349	0.0009

Appendix

Figure A3: Histograms of Historical Results by Chemical Specie *(continued)*

(Drum samples not included)

Magnesium



Quantiles

100.0%	Maximum	80900
99.5%		80900
97.5%		80900
90.0%		79600
75.0%	Quartile	72400
50.0%	Median	58100
25.0%	Quartile	44800
10.0%		39380
2.5%		38200
0.5%		38200
0.0%	Minimum	38200

Moments

Mean	58581.82
Std Dev	14676.77
Std Err Mean	4425.21
upper 95% Mean	68441.87
lower 95% Mean	48721.77
N	11.00

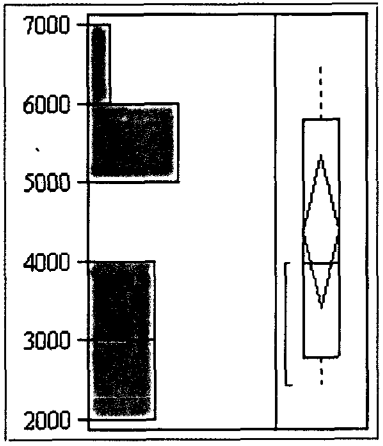
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.185673	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.930277	0.3951

Manganese



Quantiles

100.0%	maximum	6500.0
99.5%		6500.0
97.5%		6500.0
90.0%		6388.0
75.0%	quartile	5790.0
50.0%	median	3980.0
25.0%	quartile	2780.0
10.0%		2476.0
2.5%		2420.0
0.5%		2420.0
0.0%	minimum	2420.0

Moments

Mean	4380.000
Std Dev	1433.932
Std Err Mean	432.347
upper 95% Mean	5343.334
lower 95% Mean	3416.666
N	11.000

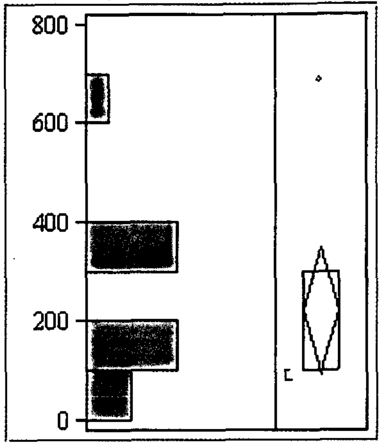
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.195079	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.931572	0.4079

Mercury



Quantiles

100.0%	maximum	690.00
99.5%		690.00
97.5%		690.00
90.0%		612.00
75.0%	quartile	300.00
50.0%	median	100.00
25.0%	quartile	100.00
10.0%		80.00
2.5%		80.00
0.5%		80.00
0.0%	minimum	80.00

Moments

Mean	222.7273
Std Dev	185.2615
Std Err Mean	55.8584
upper 95% Mean	347.1884
lower 95% Mean	98.2661
N	11.0000

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.309611	<	0.0100

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

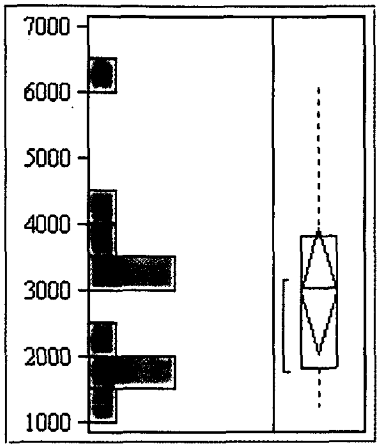
W	Prob<W
0.733890	0.0018

Appendix

Figure A3: Histograms of Historical Results by Chemical Specie ***(continued)***

(Drum samples not included)

Nickel



Quantiles

100.0%	Maximum	6170.0
99.5%		6170.0
97.5%		6170.0
90.0%		5782.0
75.0%	Quartile	3830.0
50.0%	Median	3040.0
25.0%	Quartile	1810.0
10.0%		1312.0
2.5%		1200.0
0.5%		1200.0
0.0%	Minimum	1200.0

Moments

Mean	2974.545
Std Dev	1418.417
Std Err Mean	427.669
upper 95% Mean	3927.457
lower 95% Mean	2021.634
N	11.000

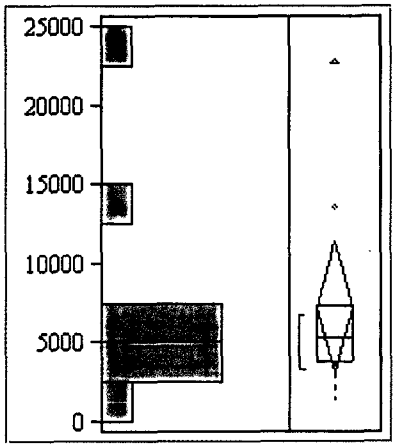
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.147320	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.921395	0.3151

Potassium



Quantiles

100.0%	maximum	22800
99.5%		22800
97.5%		22800
90.0%		20960
75.0%	quartile	7360
50.0%	median	5310
25.0%	quartile	3740
10.0%		1700
2.5%		1300
0.5%		1300
0.0%	minimum	1300

Moments

Mean	7258.182
Std Dev	6069.239
Std Err Mean	1829.944
upper 95% Mean	11335.577
lower 95% Mean	3180.786
N	11.000

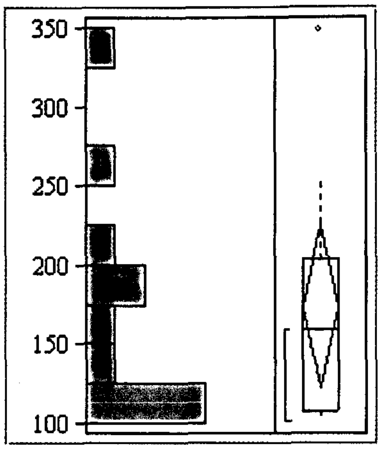
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.176183	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.773900	0.0052

Selenium



Quantiles

100.0%	maximum	349.00
99.5%		349.00
97.5%		349.00
90.0%		330.00
75.0%	quartile	204.00
50.0%	median	159.00
25.0%	quartile	108.00
10.0%		101.80
2.5%		101.00
0.5%		101.00
0.0%	minimum	101.00

Moments

Mean	173.5455
Std Dev	76.0202
Std Err Mean	22.9210
upper 95% Mean	224.6168
lower 95% Mean	122.4741
N	11.0000

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

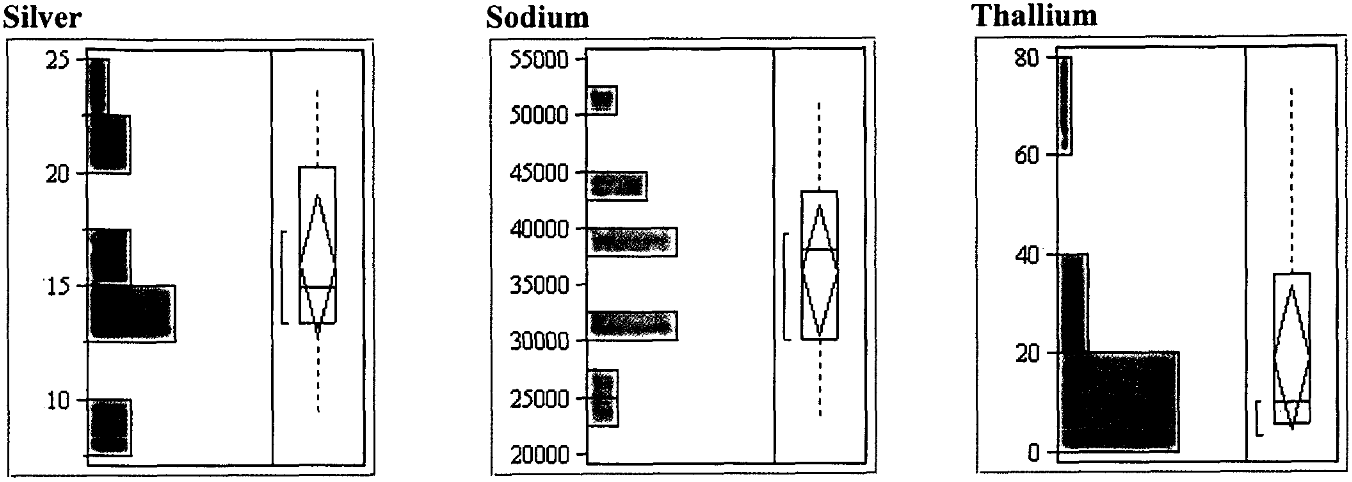
D		Prob>D
0.163367	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.868315	0.0728

Appendix

Figure A3: Histograms of Historical Results by Chemical Specie *(continued)*
(Drum samples not included)



Silver

Quantiles

100.0%	Maximum	23.800
99.5%		23.800
97.5%		23.800
90.0%		23.340
75.0%	Quartile	20.200
50.0%	Median	14.900
25.0%	Quartile	13.300
10.0%		9.260
2.5%		9.200
0.5%		9.200
0.0%	Minimum	9.200

Moments

Mean	15.90909
Std Dev	4.60358
Std Err Mean	1.38803
upper 95% Mean	19.00183
lower 95% Mean	12.81635
N	11.00000

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		**Prob>D**
0.141608	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	**Prob<W**
0.959799	0.7490

Sodium

Quantiles

100.0%	maximum	51700
99.5%		51700
97.5%		51700
90.0%		50180
75.0%	quartile	43100
50.0%	median	38100
25.0%	quartile	30100
10.0%		23720
2.5%		22900
0.5%		22900
0.0%	minimum	22900

Moments

Mean	36100.00
Std Dev	8543.30
Std Err Mean	2575.90
upper 95% Mean	41839.50
lower 95% Mean	30360.50
N	11.00

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		**Prob>D**
0.175074	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	**Prob<W**
0.969223	0.8638

Thallium

Quantiles

100.0%	maximum	73.900
99.5%		73.900
97.5%		73.900
90.0%		66.640
75.0%	quartile	35.800
50.0%	median	10.000
25.0%	quartile	5.500
10.0%		3.280
2.5%		3.100
0.5%		3.100
0.0%	minimum	3.100

Moments

Mean	19.01818
Std Dev	21.81114
Std Err Mean	6.57630
upper 95% Mean	33.67119
lower 95% Mean	4.36517
N	11.00000

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		**Prob>D**
0.162016	>	0.1500

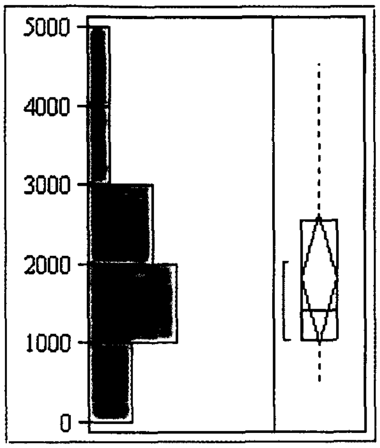
Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	**Prob<W**
0.730140	0.0016

Appendix

Figure A3: Histograms of Historical Results by Chemical Specie ***(continued)***
(Drum samples not included)

Vanadium



Quantiles

100.0%	Maximum	4550.0
99.5%		4550.0
97.5%		4550.0
90.0%		4248.0
75.0%	Quartile	2540.0
50.0%	Median	1420.0
25.0%	Quartile	1040.0
10.0%		434.2
2.5%		418.0
0.5%		418.0
0.0%	Minimum	418.0

Moments

Mean	1819.727
Std Dev	1214.045
Std Err Mean	366.048
upper 95% Mean	2635.339
lower 95% Mean	1004.116
N	11.000

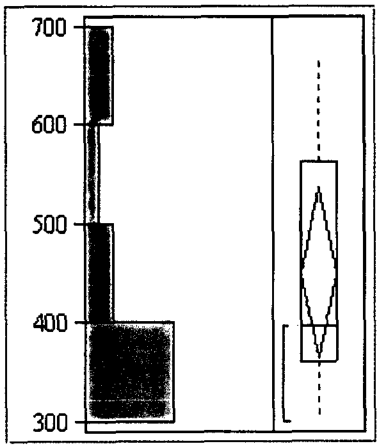
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		**Prob>D**
0.136270	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	**Prob<W**
0.913540	0.2562

Zinc



Quantiles

100.0%	maximum	672.00
99.5%		672.00
97.5%		672.00
90.0%		665.00
75.0%	quartile	563.00
50.0%	median	397.00
25.0%	quartile	361.00
10.0%		302.00
2.5%		301.00
0.5%		301.00
0.0%	minimum	301.00

Moments

Mean	450.0000
Std Dev	127.1880
Std Err Mean	38.3486
upper 95% Mean	535.4466
lower 95% Mean	364.5534
N	11.0000

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

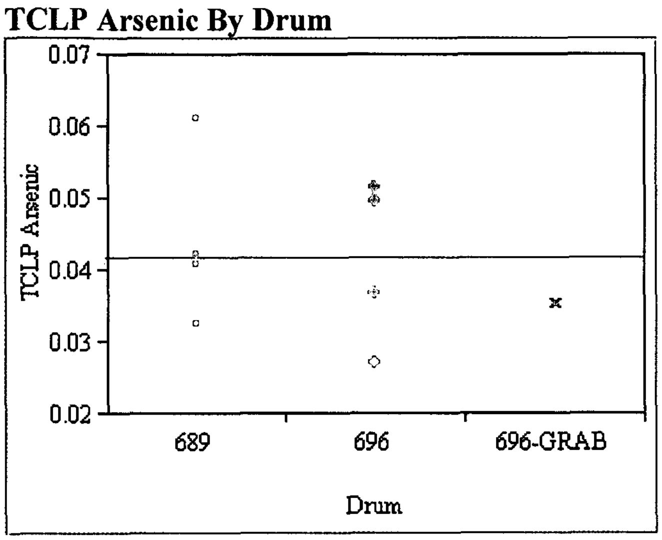
D		**Prob>D**
0.174474	>	0.1500

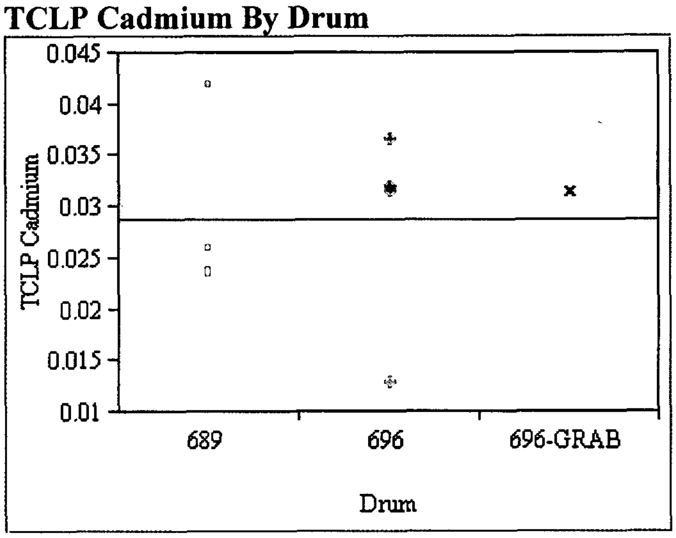
Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

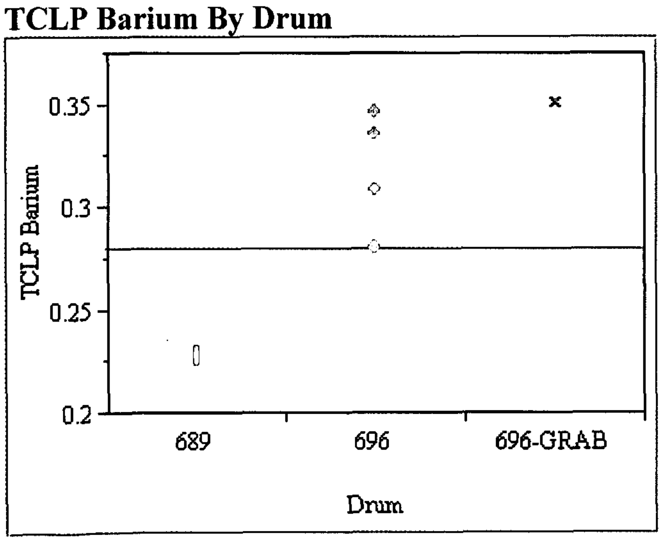
W	**Prob<W**
0.915884	0.2727

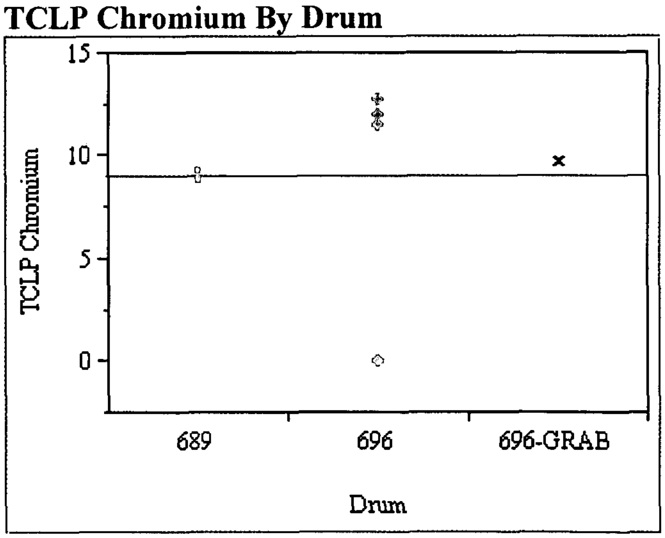
Appendix

Figure A4: Plots of the TCLP Measurements by Drum ID



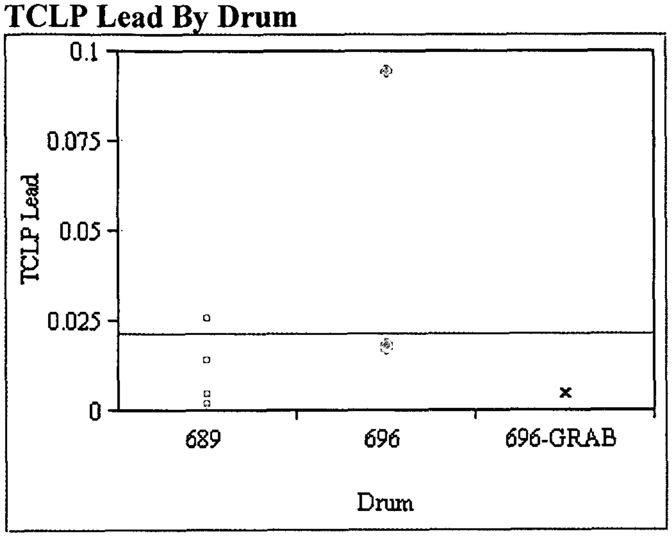


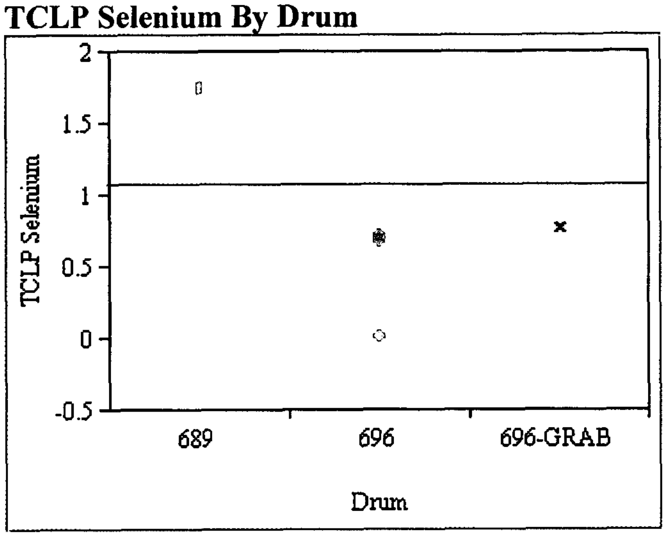


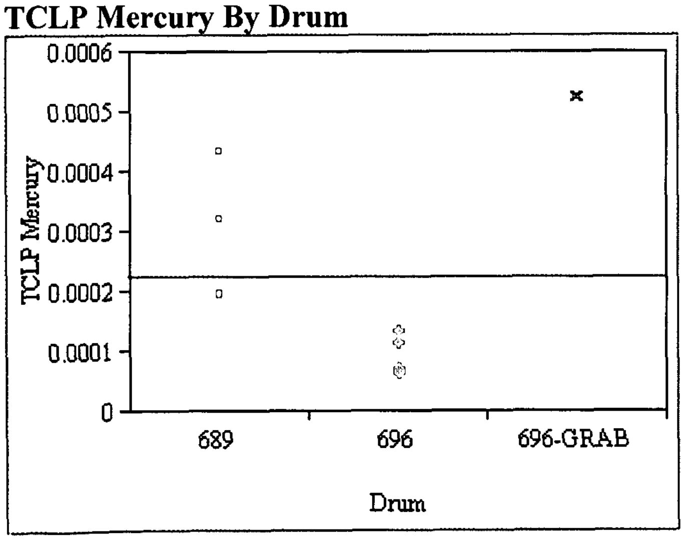


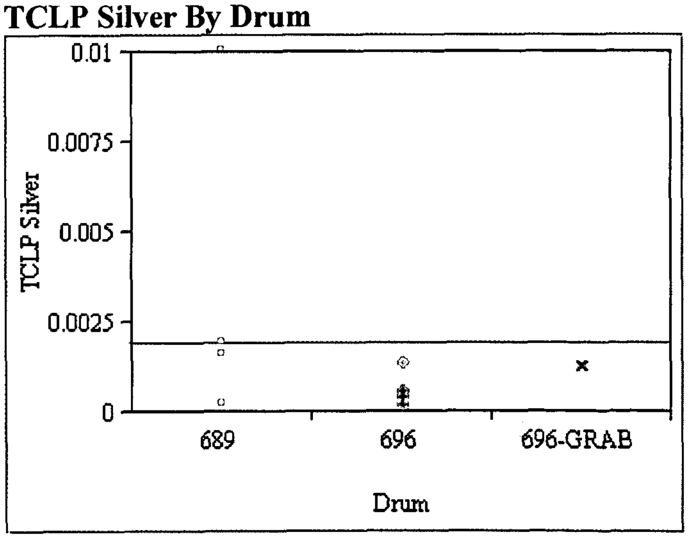
Appendix

Figure A4: Plots of the TCLP Measurements by Drum ID *(continued)*









Appendix

Figure A5: Investigation into Variance Components by TCLP Analyte

(Drum to drum versus sample to sample including analytical)

Response TCLP Arsenic

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.015598
RSquare Adj	-0.14847
Root Mean Square Error	0.01181
Mean of Response	0.042512
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	-0.00003	-29.238
Residual	0.000139	129.238
Total	0.000108	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0.00001	0.00001	1	0.0951	0.7682

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response TCLP Barium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.861986
RSquare Adj	0.838983
Root Mean Square Error	0.021138
Mean of Response	0.27175
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	0.004074	90.117
Residual	0.000447	9.883
Total	0.004521	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0.01674	0.01674	1	37.4737	0.0009

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A5: Investigation into Variance Components by TCLP Analyte *(continued)*

(Drum to drum versus sample to sample including analytical)

Response TCLP Cadmium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.000321
RSquare Adj	-0.16629
Root Mean Square Error	0.00966
Mean of Response	0.028325
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	-0.00002	-33.248
Residual	0.000093	133.248
Total	0.00007	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	1.8e-7	1.8e-7	1	0.0019	0.9664

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response TCLP Chromium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.000878
RSquare Adj	-0.16564
Root Mean Square Error	4.265886
Mean of Response	8.919525
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	-4.52545	-33.099
Residual	18.19778	133.099
Total	13.67233	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0.09597	0.09597	1	0.0053	0.9445

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A5: Investigation into Variance Components by TCLP Analyte *(continued)*

(Drum to drum versus sample to sample including analytical)

Response TCLP Lead

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.220656
RSquare Adj	0.090766
Root Mean Square Error	0.028222
Mean of Response	0.02367
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	0.000139	14.872
Residual	0.000796	85.128
Total	0.000936	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0.00135	0.00135	1	1.6988	0.2402

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response TCLP Mercury

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.624092
RSquare Adj	0.56144
Root Mean Square Error	0.000084
Mean of Response	0.000187
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	1.594e-8	69.139
Residual	7.115e-9	30.861
Total	2.306e-8	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	7.09e-8	7.09e-8	1	9.9613	0.0197

If the 696-Grab sample is included in this analysis, the drum to drum variation is not longer statistically significant at a 5% significance level.

Appendix

Figure A5: Investigation into Variance Components by TCLP Analyte *(continued)*
(Drum to drum versus sample to sample including analytical)

Response TCLP Selenium

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.886892
RSquare Adj	0.868041
Root Mean Square Error	0.246284
Mean of Response	1.12025
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	0.698251	92.007
Residual	0.060656	7.993
Total	0.758907	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	2.85366	2.85366	1	47.0468	0.0005

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Response TCLP Silver

Summary of Fit

R-square is the portion of variation attributed to the model, between 0 and 1. Root Mean Squared Error "RMSE" estimates the standard deviation of the residual.

RSquare	0.206047
RSquare Adj	0.073722
Root Mean Square Error	0.003165
Mean of Response	0.001978
Observations (or Sum Wgts)	8

Variance Component Estimates

Component	Var Comp Est	Percent of Total
Drum&Random	0.000001	12.225
Residual	0.00001	87.775
Total	0.000011	100.000

These estimates based on equating Mean Squares to Expected Value.

Tests wrt Random Effects

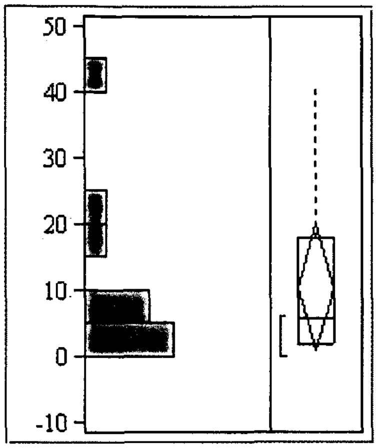
Source	SS	MS Num	DF Num	F Ratio	Prob > F
Drum&Random	0.00002	0.00002	1	1.5571	0.2586

If the 696-Grab sample is included in this analysis, the conclusions are not changed.

Appendix

Figure A6: Histograms of Historical TCLP Results by Analyte
(Drum samples not included)

TCLP Arsenic



Quantiles

100.0%	maximum	41.500
99.5%		41.500
97.5%		41.500
90.0%		39.770
75.0%	quartile	17.900
50.0%	median	5.725
25.0%	quartile	1.737
10.0%		0.021
2.5%		0.018
0.5%		0.018
0.0%	minimum	0.018

Moments

Mean	10.42880
Std Dev	13.29437
Std Err Mean	4.20405
upper 95% Mean	19.93910
lower 95% Mean	0.91850
N	10.00000

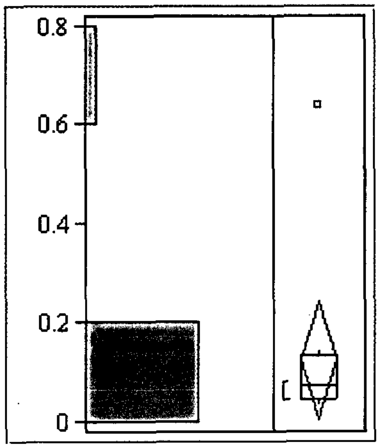
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D	Prob>D
0.278331	0.0357

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.778035	0.0082

TCLP Barium



Quantiles

100.0%	maximum	0.64000
99.5%		0.64000
97.5%		0.64000
90.0%		0.54320
75.0%	quartile	0.13500
50.0%	median	0.07400
25.0%	quartile	0.04500
10.0%		0.02260
2.5%		0.02000
0.5%		0.02000
0.0%	minimum	0.02000

Moments

Mean	0.1232727
Std Dev	0.1763049
Std Err Mean	0.0531579
upper 95% Mean	0.2417167
lower 95% Mean	0.0048287
N	11

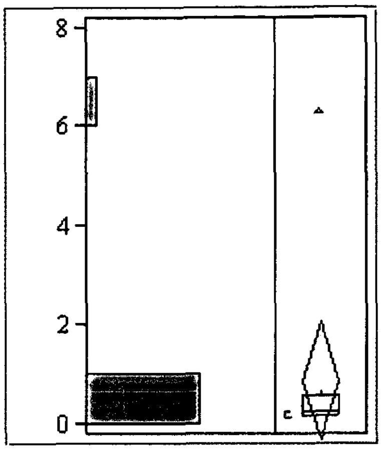
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.194418	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.548147	<.0001

TCLP Cadmium



Quantiles

100.0%	maximum	6.3200
99.5%		6.3200
97.5%		6.3200
90.0%		5.1918
75.0%	quartile	0.5610
50.0%	median	0.2470
25.0%	quartile	0.1550
10.0%		0.1108
2.5%		0.1080
0.5%		0.1080
0.0%	minimum	0.1080

Moments

Mean	0.8508182
Std Dev	1.8238077
Std Err Mean	0.5498987
upper 95% Mean	2.0760765
lower 95% Mean	-0.37444
N	11

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.180241	>	0.1500

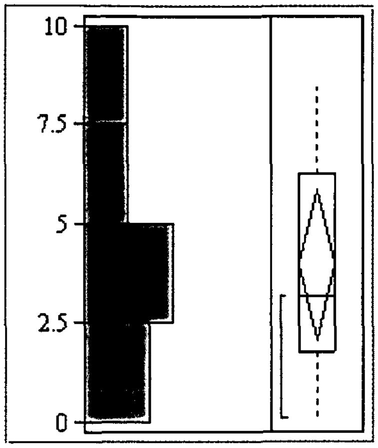
Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.430053	<.0001

Appendix

Figure A6: Histograms of Historical TCLP Results by Analyte ***(continued)***
(Drum samples not included)

TCLP Chromium



Quantiles

100.0%	maximum	8.5100
99.5%		8.5100
97.5%		8.5100
90.0%		8.3460
75.0%	quartile	6.2600
50.0%	median	3.2000
25.0%	quartile	1.7900
10.0%		0.1600
2.5%		0.1160
0.5%		0.1160
0.0%	minimum	0.1160

Moments

Mean	3.978364
Std Dev	2.812552
Std Err Mean	0.848016
upper 95% Mean	5.867874
lower 95% Mean	2.088853
N	11.000000

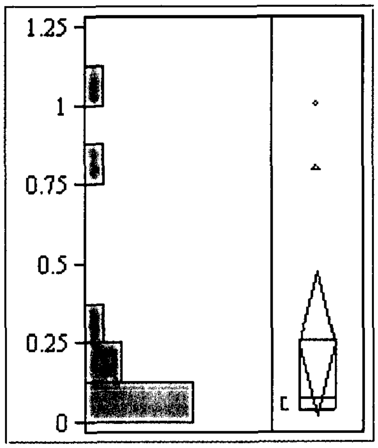
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D	Prob>D
0.242146	0.0712

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.959863	0.7498

TCLP Lead



Quantiles

100.0%	maximum	1.0100
99.5%		1.0100
97.5%		1.0100
90.0%		0.9684
75.0%	quartile	0.2580
50.0%	median	0.0730
25.0%	quartile	0.0400
10.0%		0.0400
2.5%		0.0400
0.5%		0.0400
0.0%	minimum	0.0400

Moments

Mean	0.2465455
Std Dev	0.3376712
Std Err Mean	0.1018117
upper 95% Mean	0.4733975
lower 95% Mean	0.0196934
N	11

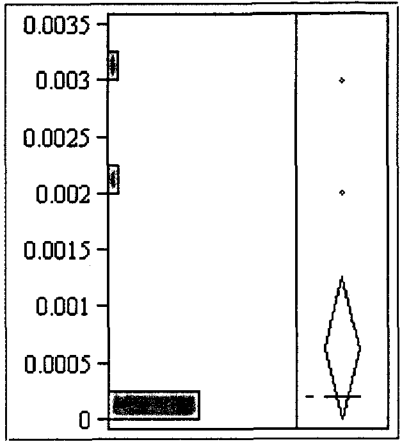
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.213966	>	0.1500

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.671061	0.0004

TCLP Mercury



Quantiles

100.0%	maximum	0.00300
99.5%		0.00300
97.5%		0.00300
90.0%		0.00280
75.0%	quartile	0.00020
50.0%	median	0.00020
25.0%	quartile	0.00020
10.0%		0.00020
2.5%		0.00020
0.5%		0.00020
0.0%	minimum	0.00020

Moments

Mean	0.0006182
Std Dev	0.0009569
Std Err Mean	0.0002885
upper 95% Mean	0.0012610
lower 95% Mean	-0.000025
N	11

Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D		Prob>D
0.490989	<	0.0100

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

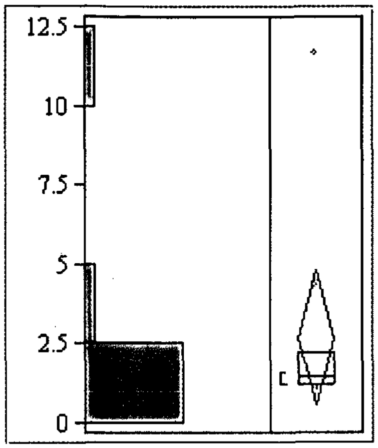
W	Prob<W
0.508771	<.0001

Appendix

Figure A6: Histograms of Historical TCLP Results by Analyte *(continued)*

(Drum samples not included)

TCLP Selenium



Quantiles

100.0%	maximum	11.700
99.5%		11.700
97.5%		11.700
90.0%		10.232
75.0%	quartile	2.240
50.0%	median	1.460
25.0%	quartile	1.200
10.0%		0.972
2.5%		0.920
0.5%		0.920
0.0%	minimum	0.920

Moments

Mean	2.654545
Std Dev	3.145191
Std Err Mean	0.948311
upper 95% Mean	4.767527
lower 95% Mean	0.541564
N	11.000000

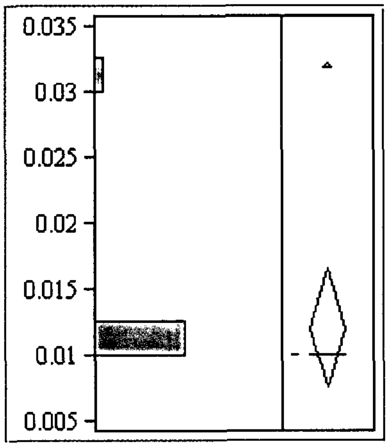
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

D	Prob>D
0.241397	0.0730

Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

W	Prob<W
0.554240	<.0001

TCLP Silver



Quantiles

100.0%	maximum	0.03200
99.5%		0.03200
97.5%		0.03200
90.0%		0.02760
75.0%	quartile	0.01000
50.0%	median	0.01000
25.0%	quartile	0.01000
10.0%		0.01000
2.5%		0.01000
0.5%		0.01000
0.0%	minimum	0.01000

Moments

Mean	0.0120000
Std Dev	0.0066332
Std Err Mean	0.0020000
upper 95% Mean	0.0164563
lower 95% Mean	0.0075437
N	11

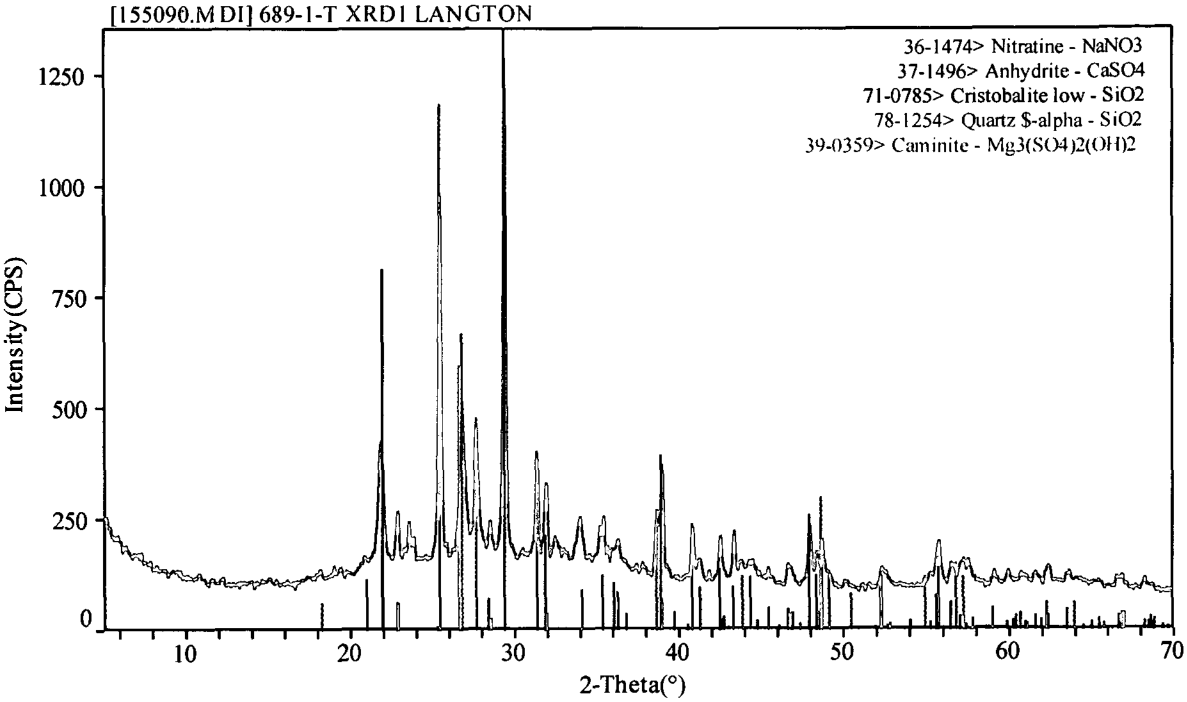
Fitted LogNormal
Goodness-of-Fit Test
KSL Test

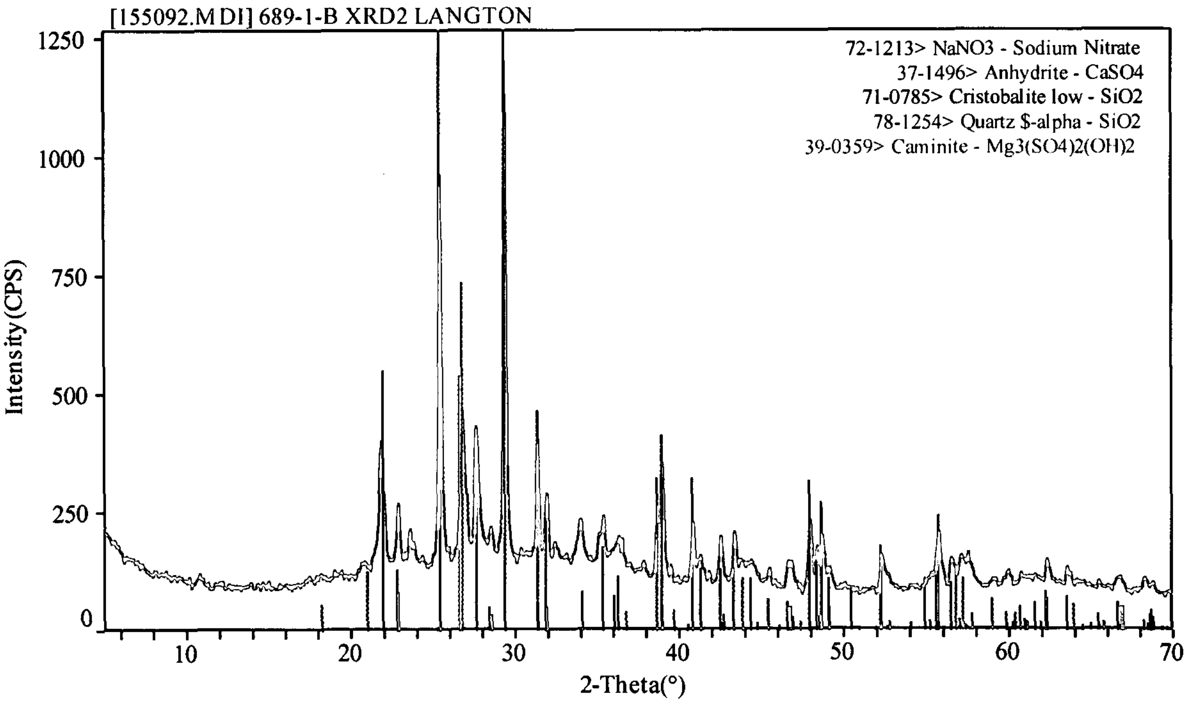
D		Prob>D
0.527579	<	0.0100

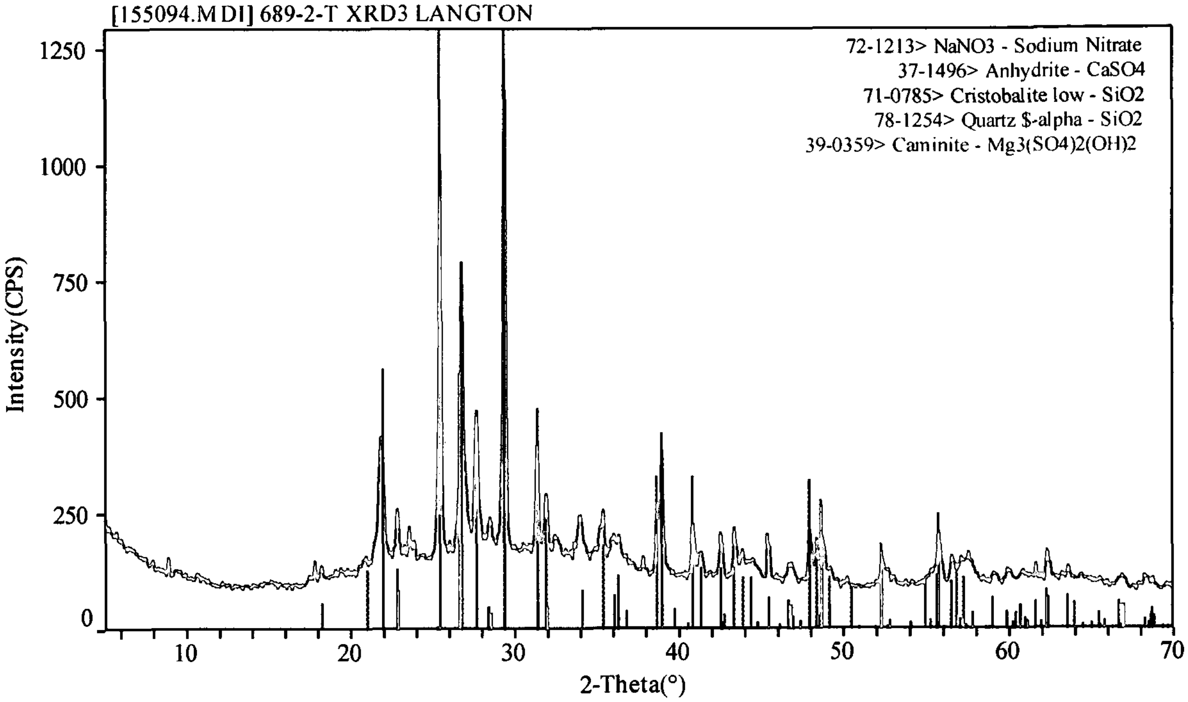
Fitted Normal
Goodness-of-Fit Test
Shapiro-Wilk W Test

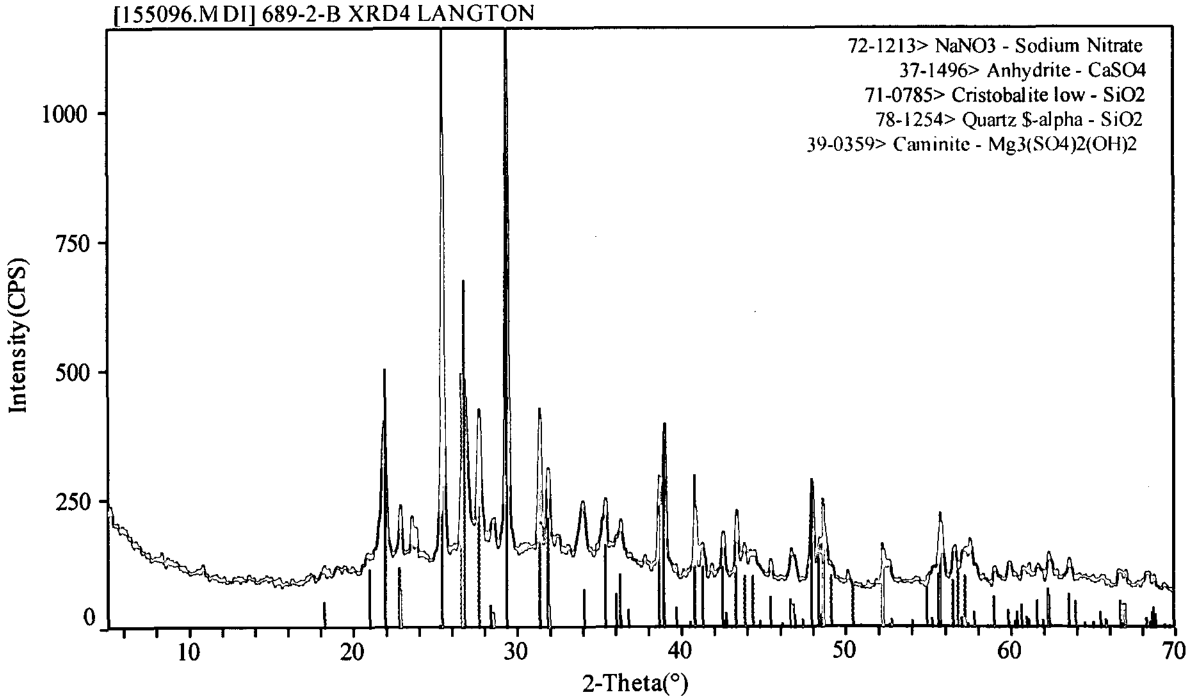
W	Prob<W
0.339276	<.0001

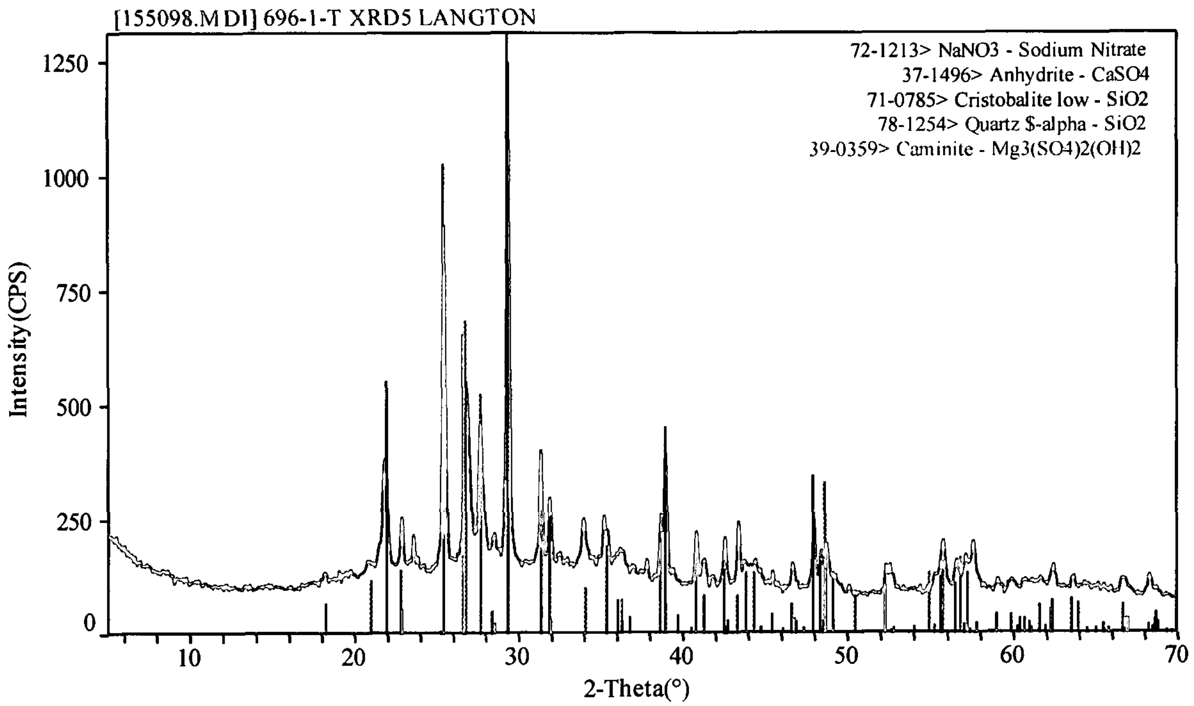
APPENDIX 4. X-ray Diffraction Patterns of the Fernald Silo 3 Waste

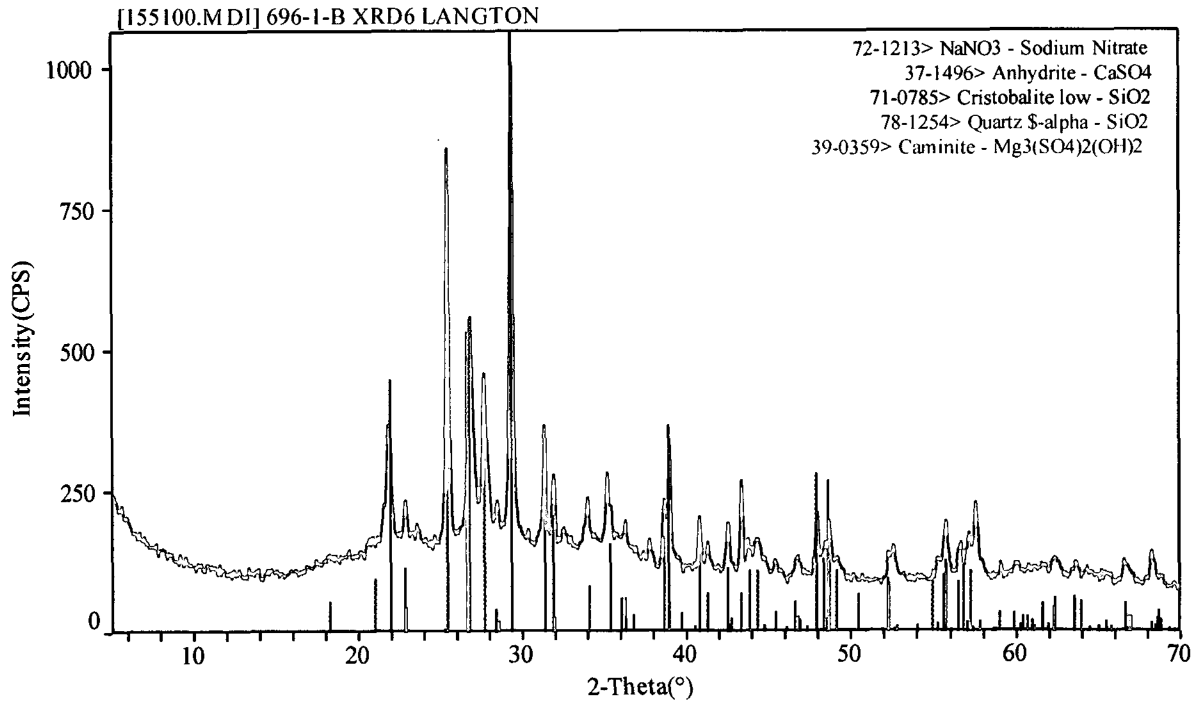

[155090.MDI] 689-1-T XRD1 LANGTON
36-1474> Nitratine - NaNO3
37-1496> Anhydrite - CaSO4
71-0785> Cristobalite low - SiO2
78-1254> Quartz $-alpha - SiO2
39-0359> Caminite - Mg3(SO4)2(OH)2
Intensity(CPS)
1250
1000
750
500
250
0
10
20
30
40
50
60
70
2-Theta(°)

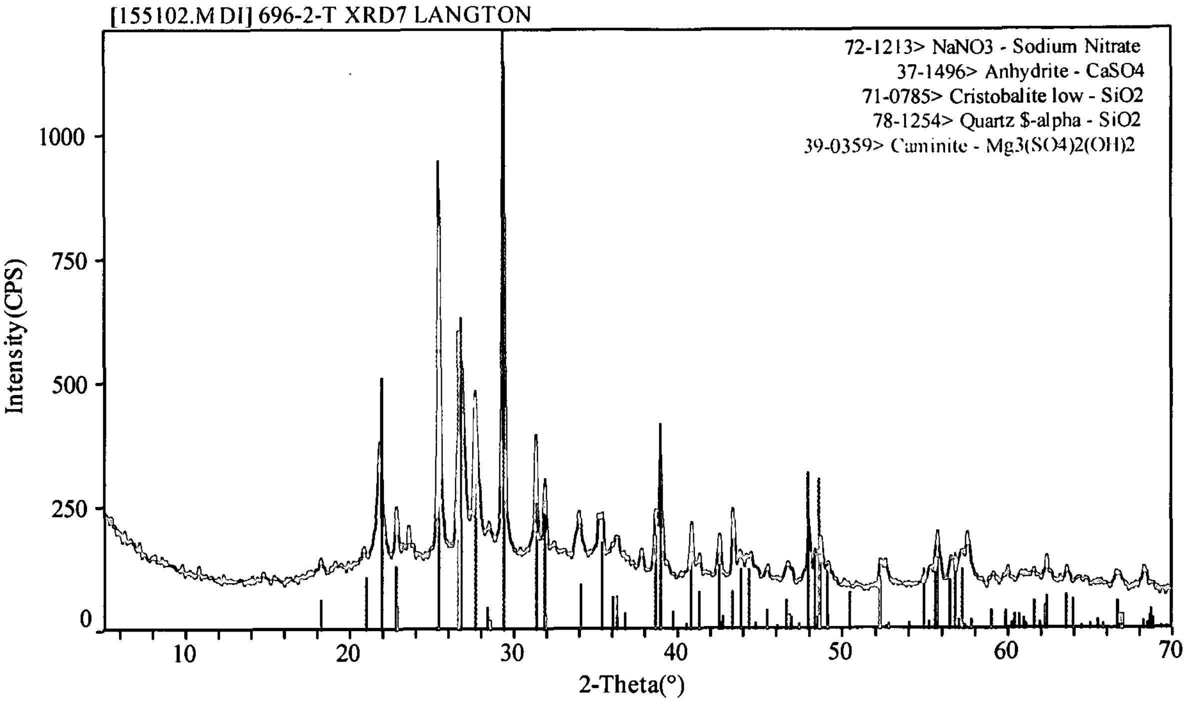

[155092.MDI] 689-1-B XRD2 LANGTON
72-1213> NaNO3 - Sodium Nitrate
37-1496> Anhydrite - CaSO4
71-0785> Cristobalite low - SiO2
78-1254> Quartz $-alpha - SiO2
39-0359> Caminite - Mg3(SO4)2(OH)2
Intensity(CPS)
1250
1000
750
500
250
0
10
20
30
40
50
60
70
2-Theta(°)

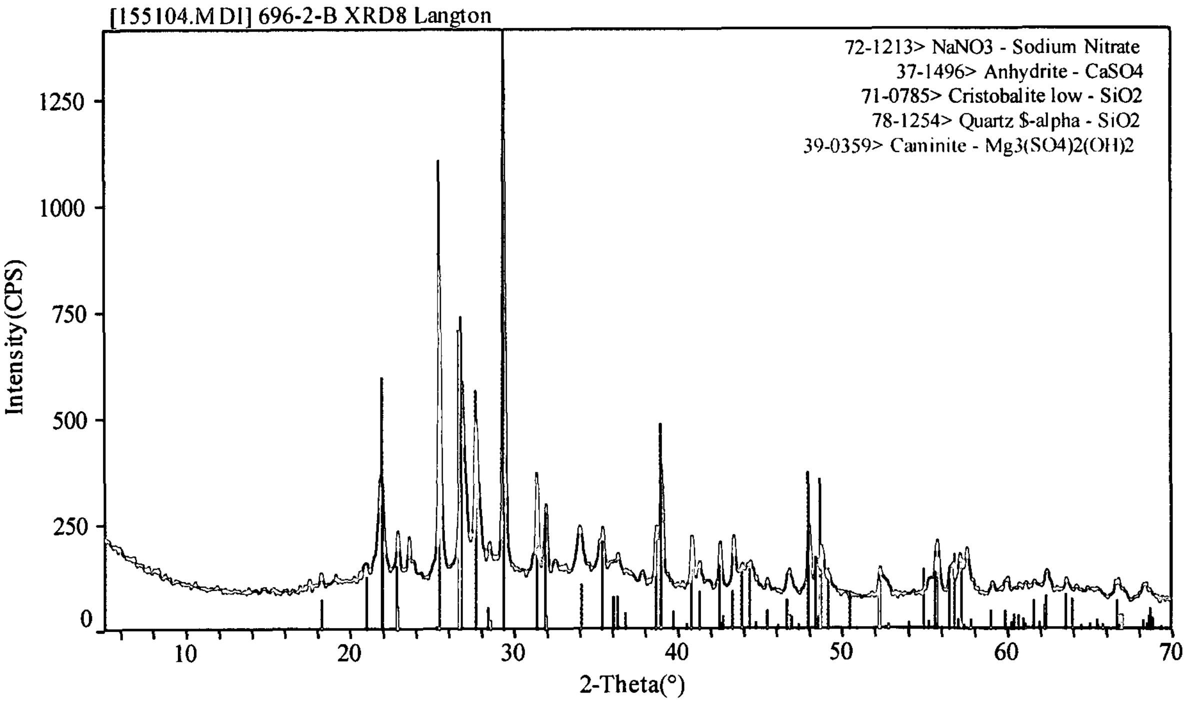

[155094.MDI] 689-2-T XRD3 LANGTON
72-1213> NaNO3 - Sodium Nitrate
37-1496> Anhydrite - CaSO4
71-0785> Cristobalite low - SiO2
78-1254> Quartz $-alpha - SiO2
39-0359> Caminite - Mg3(SO4)2(OH)2
Intensity(CPS)
1250
1000
750
500
250
0
10
20
30
40
50
60
70
2-Theta(°)

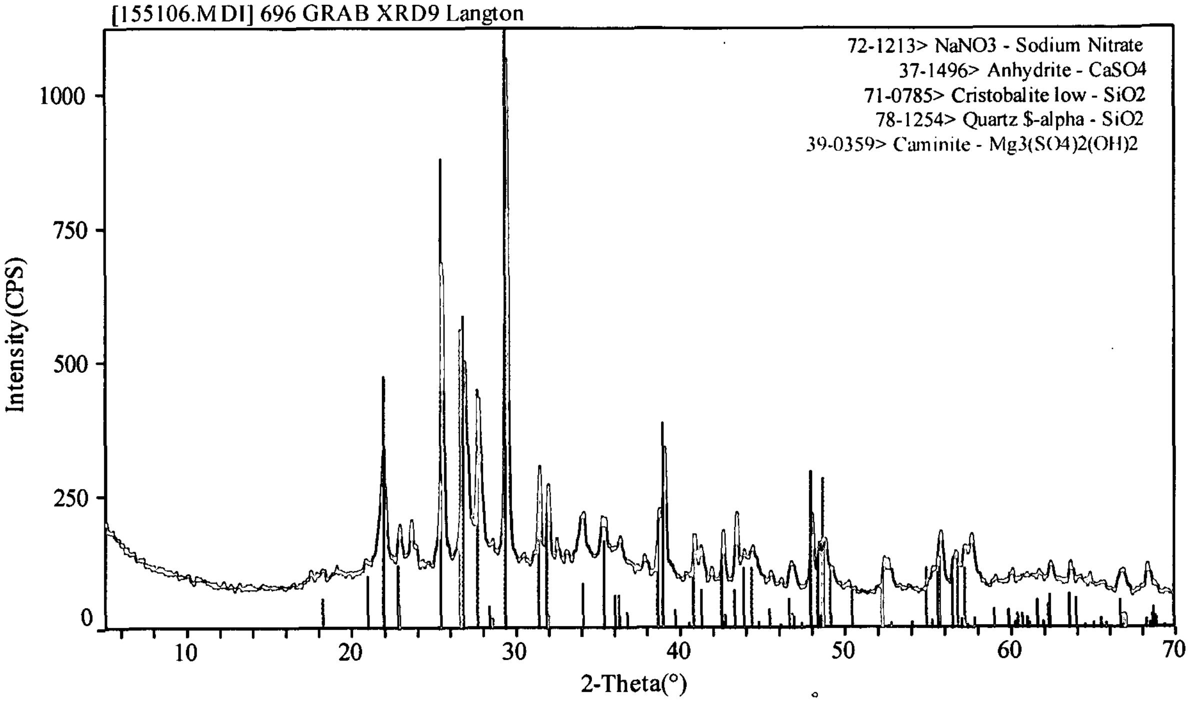

[155096.MDI] 689-2-B XRD4 LANGTON
72-1213> NaNO3 - Sodium Nitrate
37-1496> Anhydrite - CaSO4
71-0785> Cristobalite low - SiO2
78-1254> Quartz $-alpha - SiO2
39-0359> Caminite - Mg3(SO4)2(OH)2
Intensity(CPS)
1000
750
500
250
0
10
20
30
40
50
60
70
2-Theta(°)

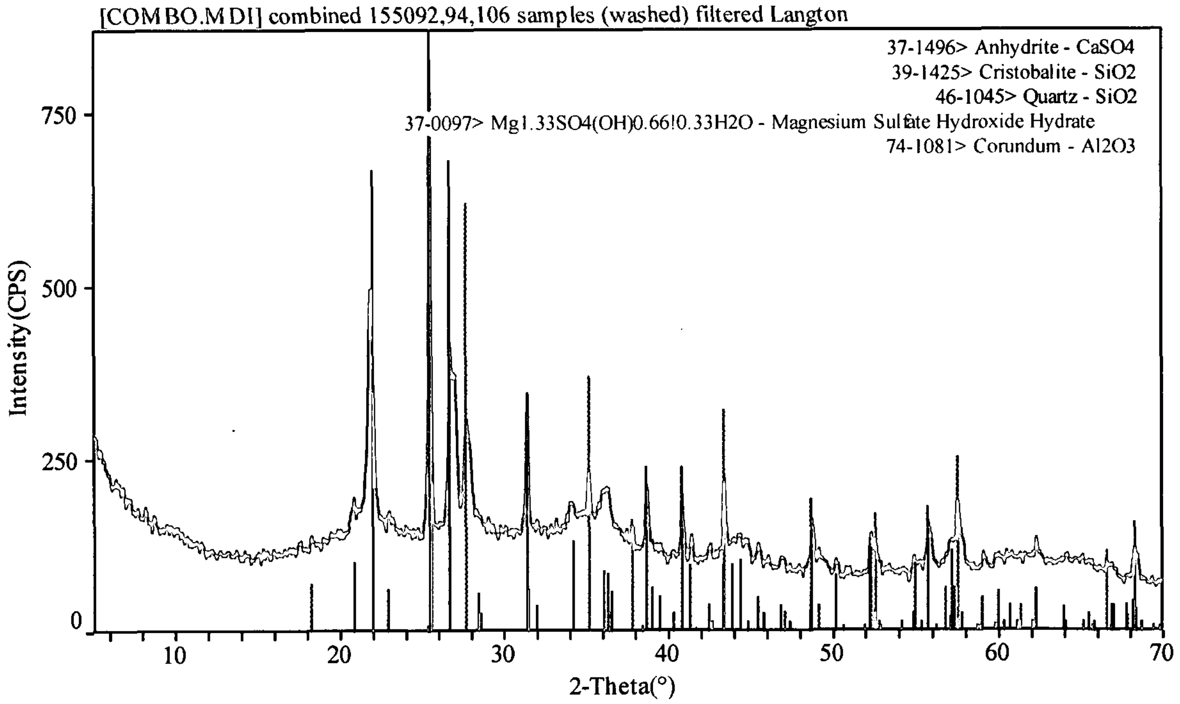

[155098.MDI] 696-1-T XRD5 LANGTON
72-1213> NaNO3 - Sodium Nitrate
37-1496> Anhydrite - CaSO4
71-0785> Cristobalite low - SiO2
78-1254> Quartz $-alpha - SiO2
39-0359> Caminite - Mg3(SO4)2(OH)2
Intensity(CPS)
1250
1000
750
500
250
0
10
20
30
40
50
60
70
2-Theta(°)


[155100.MDI] 696-1-B XRD6 LANGTON
72-1213> NaNO3 - Sodium Nitrate
37-1496> Anhydrite - CaSO4
71-0785> Cristobalite low - SiO2
78-1254> Quartz $-alpha - SiO2
39-0359> Caminite - Mg3(SO4)2(OH)2
Intensity(CPS)
1000
750
500
250
0
10
20
30
40
50
60
70
2-Theta(°)


[155102.MDI] 696-2-T XRD7 LANGTON
72-1213> NaNO3 - Sodium Nitrate
37-1496> Anhydrite - CaSO4
71-0785> Cristobalite low - SiO2
78-1254> Quartz $-alpha - SiO2
39-0359> Caminite - Mg3(SO4)2(OH)2
Intensity(CPS)
0
250
500
750
1000
10
20
30
40
50
60
70
2-Theta(°)


[155104.MDI] 696-2-B XRD8 Langton
72-1213> NaNO3 - Sodium Nitrate
37-1496> Anhydrite - CaSO4
71-0785> Cristobalite low - SiO2
78-1254> Quartz $-alpha - SiO2
39-0359> Caminite - Mg3(SO4)2(OH)2
Intensity(CPS)
0
250
500
750
1000
1250
10
20
30
40
50
60
70
2-Theta(°)


[155106.MDI] 696 GRAB XRD9 Langton
72-1213> NaNO3 - Sodium Nitrate
37-1496> Anhydrite - CaSO4
71-0785> Cristobalite low - SiO2
78-1254> Quartz $-alpha - SiO2
39-0359> Caminite - Mg3(SO4)2(OH)2
Intensity(CPS)
1000
750
500
250
0
10
20
30
40
50
60
70
2-Theta(°)


[COMBO.MDI] combined 155092,94,106 samples (washed) filtered Langton
37-1496> Anhydrite - CaSO4
39-1425> Cristobalite - SiO2
46-1045> Quartz - SiO2
37-0097> Mg1.33SO4(OH)0.66!0.33H2O - Magnesium Sulfate Hydroxide Hydrate
74-1081> Corundum - Al2O3
Intensity(CPS)
750
500
250
0
10
20
30
40
50
60
70
2-Theta(°)

APPENDIX 5. TCLP Analyses of the Fernald Silo 3 Waste

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689-1-T

Certificate of Analysis

Reanalyze
used these results

Company : Westinghouse Savannah Rivr Co.
Address : Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: January 11, 2001

Page 1 of 2

Client Sample ID: 689-1-T
Sample ID: 35922001
Matrix: Misc Solid
Collect Date: 12-OCT-00
Receive Date: 03-JAN-01
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Metals Analysis-ICP Federal

TCLP ICP Metals for Solid

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Antimony, total recoverable		0.166	0.0269	0.100	mg/L	10	AME	01/05/01	1343	59633	1
Arsenic, total recoverable	U	0.0322	0.0333	0.500	mg/L	10					
Barium, total recoverable	J	0.230	0.00101	10.0	mg/L	10					
Beryllium, total recoverable	J	0.0101	0.00155	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0416	0.00319	0.100	mg/L	10					
Chromium, total recoverable		9.12	0.00691	0.500	mg/L	10					
Lead, total recoverable	U	-0.00105	0.0172	0.500	mg/L	10					
Nickel, total recoverable		65.4	0.0186	0.050	mg/L	10					
Selenium, total recoverable		1.71	0.0492	0.100	mg/L	10					
Silver, total recoverable	J	0.00995	0.00448	0.500	mg/L	10					
Thallium, total recoverable		0.226	0.0446	0.100	mg/L	10					
Vanadium, total recoverable	U	0.00194	0.00702	0.050	mg/L	10					
Zinc, total recoverable		1.19	0.0169	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	01/03/01	1630	59449
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	FDG	01/04/01	1553	59600

The following Analytical Methods were performed

Method	Description
1	SW846 3010/6010B

Notes:
The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

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Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: January 11, 2001

Page 2 of 2

Client Sample ID: 689-1-T
Sample ID: 35922001

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Reviewed by

GENERAL ENGINEERING LABORATORIES

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Certificate of Analysis

Company : Westinghouse Savannah Rivr Co.
Address : Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: January 11, 2001

Page 1 of 2

Client Sample ID: 696-1-T
Sample ID: 35922002
Matrix: Misc Solid
Collect Date: 13-OCT-00
Receive Date: 03-JAN-01
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Metals Analysis-ICP Federal										
TCLP ICP Metals for Solid										
Antimony, total recoverable		0.112	0.0269	0.100	mg/L	10	AME 01/05/01	1350	59633	1
Arsenic, total recoverable	U	0.0115	0.0333	0.500	mg/L	10				
Barium, total recoverable	J	0.355	0.00101	10.0	mg/L	10				
Beryllium, total recoverable	J	0.00726	0.00155	0.050	mg/L	10				
Cadmium, total recoverable	J	0.0753	0.00319	0.100	mg/L	10				
Chromium, total recoverable		13.8	0.00691	0.500	mg/L	10				
Lead, total recoverable	U	-0.0169	0.0172	0.500	mg/L	10				
Nickel, total recoverable		10.4	0.0186	0.050	mg/L	10				
Selenium, total recoverable		0.792	0.0492	0.100	mg/L	10				
Silver, total recoverable	J	0.00763	0.00448	0.500	mg/L	10				
Thallium, total recoverable		0.148	0.0446	0.100	mg/L	10				
Vanadium, total recoverable	J	0.0403	0.00702	0.050	mg/L	10				
Zinc, total recoverable		0.0654	0.0169	0.050	mg/L	10				

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	01/03/01	1630	59449
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	FDG	01/04/01	1553	59600

The following Analytical Methods were performed

Method	Description
1	SW846 3010/6010B

Notes:
The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company :	Westinghouse Savannah Rivr Co.
Address :	Building 735-16A, Rm 5 P.O. Box 616 Aiken, SC 29802
Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: January 11, 2001

Page 2 of 2

Client Sample ID:	696-1-T	Project:	WSRC00497
Sample ID:	35922002	Client ID:	WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Reviewed by

QC Summary

Report Date: January 11, 2001
Page 1 of 3

Client : Westinghouse Savannah Rivr Co.
Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802

Contact: Ms. Janet Crawford

Workorder: 35922

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal												
Batch 59633												
QC1000146814 LCS												
Antimony, total recoverable	2.00				2.03	mg/L		102	(80%-116%)	AME	01/05/01	13:36
Arsenic, total recoverable	5.00				5.40	mg/L		108	(80%-117%)			
Barium. total recoverable	10.0			J	9.90	mg/L		99	(87%-116%)			
Beryllium, total recoverable	2.00				2.04	mg/L		102	(89%-116%)			
Cadmium, total recoverable	1.00				1.07	mg/L		107	(88%-117%)			
Chromium, total recoverable	5.00				5.25	mg/L		105	(88%-117%)			
Lead, total recoverable	5.00				5.21	mg/L		104	(89%-117%)			
Nickel, total recoverable	2.00				2.11	mg/L		106	(88%-119%)			
Selenium, total recoverable	1.00				0.995	mg/L		100	(87%-114%)			
Silver, total recoverable	0.500				0.510	mg/L		102	(80%-119%)			
Thallium, total recoverable	2.00				2.01	mg/L		100	(90%-118%)			
Vanadium, total recoverable	2.00				2.04	mg/L		102	(89%-115%)			
Zinc, total recoverable	2.00				2.08	mg/L		104	(89%-117%)			
QC1000146810 MB												
Antimony, total recoverable				U	0.0164	mg/L					01/05/01	13:22
Arsenic, total recoverable				U	-0.0269	mg/L						
Barium. total recoverable				U	0.000519	mg/L						
Beryllium. total recoverable				U	-0.00113	mg/L						
Cadmium, total recoverable				U	0.00118	mg/L						
Chromium, total recoverable				U	-0.001	mg/L						
Lead, total recoverable				U	-0.00572	mg/L						
Nickel, total recoverable				U	-0.000815	mg/L						
Selenium, total recoverable				U	-0.00254	mg/L						
Silver, total recoverable				U	0.00193	mg/L						
Thallium, total recoverable				U	0.00958	mg/L						
Vanadium, total recoverable				U	-0.000067	mg/L						
Zinc, total recoverable				J	0.0287	mg/L						
QC1000146811 35922002 MS												
Antimony, total recoverable	2.00		0.112		2.27	mg/L		108	(76%-124%)		01/05/01	14:04
Arsenic, total recoverable	5.00	U	0.0115		5.70	mg/L		114	(85%-118%)			
Barium, total recoverable	10.0	J	0.355	J	7.17	mg/L		68*	(90%-113%)			
Beryllium, total recoverable	2.00	J	0.00726		2.12	mg/L		106	(88%-116%)			
Cadmium, total recoverable	1.00	J	0.0753		1.17	mg/L		109	(89%-116%)			
Chromium, total recoverable	5.00		13.8		19.8	mg/L		119*	(88%-112%)			
Lead, total recoverable	5.00	U	-0.0169		5.18	mg/L		104	(85%-118%)			
Nickel, total recoverable	2.00		10.4		13.0	mg/L		130*	(90%-118%)			
Selenium, total recoverable	1.00		0.792		1.79	mg/L		100	(84%-112%)			
Silver, total recoverable	0.500	J	0.00763		0.540	mg/L		107	(89%-120%)			
Thallium, total recoverable	2.00		0.148		2.20	mg/L		103	(87%-115%)			
Vanadium, total recoverable	2.00	J	0.0403		2.17	mg/L		107	(89%-114%)			
Zinc, total recoverable	2.00		0.0654		2.19	mg/L		106	(91%-114%)			
QC1000146812 35922002 MSD												

QC Summary

Workorder: 35922

Page 2 of 3

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal												
Batch 59633												
Antimony, total recoverable	2.00		0.112		2.24	mg/L	1	107	(0%-7%)			
Arsenic, total recoverable.	5.00	U	0.0115		5.72	mg/L	0	114	(0%-7%)			
Barium. total recoverable	10.0	J	0.355	J	6.11	mg/L	16*	58	(0%-6%)			
Beryllium, total recoverable	2.00	J	0.00726		2.10	mg/L	1	105	(0%-7%)			
Cadmium, total recoverable	1.00	J	0.0753		1.16	mg/L	1	109	(0%-7%)			
Chromium, total recoverable	5.00		13.8		19.4	mg/L	2	112	(0%-7%)			
Lead, total recoverable	5.00	U	-0.0169		5.07	mg/L	2	101	(0%-7%)			
Nickel, total recoverable	2.00		10.4		12.7	mg/L	2	117	(0%-6%)			
Selenium, total recoverable	1.00		0.792		1.76	mg/L	2	96	(0%-7%)			
Silver, total recoverable	0.500	J	0.00763		0.538	mg/L	0	106	(0%-7%)			
Thallium, total recoverable	2.00		0.148		2.24	mg/L	2	104	(0%-8%)			
Vanadium, total recoverable	2.00	J	0.0403		2.16	mg/L	1	106	(0%-7%)			
Zinc, total recoverable	2.00		0.0654		2.18	mg/L	1	106	(0%-8%)			
QC1000146813 35922002 SDILT												
Antimony, total recoverable			11.2	J	3.91	ug/L	74.7				01/05/01	13:57
Arsenic, total recoverable		U	1.15	U	1.03	ug/L	348					
Barium. total recoverable		J	35.5	J	7.06	ug/L	.543					
Beryllium, total recoverable		J	0.726	U	-0.00265	ug/L	102					
Cadmium, total recoverable		J	7.53	J	1.89	ug/L	25.7					
Chromium, total recoverable			1380		278	ug/L	.516					
Lead, total recoverable		U	-1.69	U	-0.913	ug/L	-170					
Nickel, total recoverable			1040		213	ug/L	2.64					
Selenium, total recoverable			79.2		17.2	ug/L	8.5					
Silver, total recoverable		J	0.763	J	0.467	ug/L	206					
Thallium, total recoverable			14.8	J	6.34	ug/L	114					
Vanadium, total recoverable		J	4.03	U	0.637	ug/L	20.9					
Zinc, total recoverable			6.54	J	3.53	ug/L	170					
QC1000146396 TB												
Antimony, total recoverable				U	0.00924	mg/L					01/05/01	13:29
Arsenic, total recoverable				U	-0.0124	mg/L						
Barium. total recoverable				J	0.00201	mg/L						
Beryllium, total recoverable				U	-0.00169	mg/L						
Cadmium, total recoverable				U	0.00209	mg/L						
Chromium, total recoverable				U	0.00426	mg/L						
Lead, total recoverable				U	-0.00525	mg/L						
Nickel, total recoverable				U	-0.00556	mg/L						
Selenium, total recoverable				U	0.00752	mg/L						
Silver, total recoverable				J	0.00459	mg/L						
Thallium, total recoverable				U	-0.00685	mg/L						
Vanadium, total recoverable				U	0.00344	mg/L						
Zinc, total recoverable				J	0.0277	mg/L						

Notes:
The Qualifiers in this report are defined as follows:

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
	EPA Functional Guideline Code:Result < 5 * blank result

QC Summary

Workorder: 35922

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

U

U EPA Functional Guideline Code:Result < MDL

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Case Narrative for
WSRC006
SDG# 00542TB
Metals Analysis by ICP

Sample Analysis:

The following samples were leached according to EPA SW846 method 1311 and additionally prepared and analyzed according to the methods referenced in the "Method/Analysis Information" section of this narrative:

Sample ID	Client ID
35922001	689-1-T
35922002	696-1-T
1000146396	TCLP Blank (TB)
1000146810	Method Blank (MB)
1000146814	Laboratory Control Sample (LCS)
1000146813	696-1-TL (35922002) Serial Dilution (SD)
1000146811	696-1-TS (35922002) Matrix Spike (MS)
1000146812	696-1-TSD (35922002) Matrix Spike Duplicate (MSD)

Method/Analysis Information:

Analytical Batch #: 59633
Prep Batch #: 59449 (TCLP), 59600
Procedure: ICP-TRACE 6010 IN WASTEWATER
Analytical Method: SW846 6010B
Prep Method: SW846 1311; SW846 3010A

System Configuration

The ICP analysis was performed on a Thermo Jarrell Ash 61E Trace axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Meinhardt nebulizer, cyclonic spray chamber, and yttrium internal standard. Operating conditions for the Trace ICP are set at a power level of 950 watts. The instrument has a peristaltic pump flow rate of 140 RPM (2.0 mL/min sample uptake rate), argon gas flows of 15 L/min and 0.5 L/min for the torch and auxiliary gases, and a pressure setting of 26 PSI for the nebulizer.

Sample Preparation

All samples were prepared in accordance with the referenced SW-846 procedures.

Calibration Information:

Initial Calibration

All instruments' calibrations are conducted using method and instrument manufacturer's specifications. All initial calibration requirements have been met for this analysis.

CRDL Requirements

All CRDL standards met the referenced advisory control limits.

Continuing Calibration Verification (CCV) Standards

All continuing calibration verification (CCV) standards bracketing analyses associated with this SDG met the established acceptance criteria.

Continuing Calibration Blanks (CCB) Requirements

All continuing calibration blanks (CCB) bracketing analyses associated with this SDG met the established acceptance criteria.

ICSA/ICSAB Requirements

All interference check standard (ICSA and ICSAB) elements associated with this SDG met the established acceptance criteria.

Quality Control (QC) Information:

Blank Acceptance

The preparation and TCLP blanks analyzed with this SDG did not contain requested elements at concentrations greater than the detection limits (RDL).

LCS/LCSD Recovery Statement

All LCS spike recoveries for this SDG were within the required acceptance limits.

MS/MSD Recovery Statement

Sample 696-1-T (35922002) was designated as the quality control sample for the ICP batch. The batch included a matrix spike (MS) and a matrix spike duplicate (MSD). The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS and MSD analyses met the established quality control acceptance criteria for percent recovery for all applicable analytes, with the exception of barium and chromium, as indicated by the "*" qualifier. The nickel recovery is similarly qualified; however, because the parent sample nickel concentration was greater than 4X above the spike added amount the recovery result is deemed statistically non-applicable.

MS/MSD RPD Statement

The relative percent difference (RPD) obtained from the MSD is evaluated when the sample concentration is greater than five times (5X) the contract required detection limit (RL). All applicable analytes were within the established acceptance limits for RPD, except for barium results which fell outside of laboratory-derived statistical process control (SPC) acceptance limits.

Serial Dilution % Difference Statement

The serial dilution is used to assess interferences due to matrix suppression or enhancement. Raw element concentrations that are at least 50X the instrument detection limit (IDL) for ICP analyses are applicable for serial dilution assessment. All applicable analytes met the established criteria for serial dilution evaluation based on percent difference values of <10%. as per the analytical method.

Technical Information:

Holding Time Specifications

All samples in this SDG met the specified holding time requirements.

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. The samples and associated matrix QC analyzed by ICP were diluted 10X to minimize potential interferences arising from the high sodium content in the TCLP leaching solution.

Miscellaneous Information:

NCR Documentation

Nonconformance reports (NCR) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. No nonconformance reports (NCR) have been generated with this SDG.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis and to list any report documents generated as a result of sample analysis or review. The following additional comments were required for this sample set.

Copies of the TCLP leaching logbook are included to document leaching information associated with the samples in this SDG (e.g., initial pH, leaching solution used, etc.).

Review/Validation:

GEL requires all analytical data to be verified by a qualified data validator.

The following data validator verified the data presented in this SDG:

Reviewer: Rod Miller

Date: 01-09-01

Effective 8/00

General Engineering Laboratories, Inc.

GEL TCLP Extraction Log					35734001	35734002
Laboratory ID No.	35922001	35522001	Blank		5 9	4 4 6
Batch	5 9	4	4 9		KE	RR
Client	W S	R C	GEL		Volatiles	
Test	Metals					
A1. Sample Description						
Number of Phases (5.3.1)					✓	✓
1. Solid	✓	✓				
2. Liquid						
a. Lighter than water						
b. water						
c. heavier than water						
A2. Percent Solid Phase (weight in gm) (volume in ml)						
1. Weight of filter (5.3.2.1)						
2. Weight of sample & beaker (5.3.3.1)						
3. Weight of beaker & residue (5.3.3.4)						
4. Weight of sample filtered (5.3.3.5)						
5. Weight of filtrate & beaker (5.3.5.1)						
6. Weight of empty beaker (5.3.2.2)						
7. Weight of liquid phase (5.3.5.2)						
8. Weight of solid phase (5.3.5.3)						
9. % wet solids (5.3.5.4)						
10. Weight of dry sample & filter (5.3.6.3)						
11. Weight of dry sample (5.3.6.4)						
12. % dried solids (5.3.6.5)						
A3. Volume of Liquid (volume in ml)						
1. Volume of oil filtrate						
2. Volume of water filtrate						
B. Extraction Fluid Determination						
1. Particle size reduction? yes/no	NO	NO				
2 If Particle size reduction, Homogenization technique. See codes below						
3. Sample weight, √ if 5.0 ± 0.1 gram	2.5	2.5				
4. Volume of water, √ if 96.5 ± 1.0 mL added	48.3	48.3				
5. initial pH (after 5 minutes mixing)	8	8				
6. if pH > 5.0, √ if 3.5 mL 1N HCl added	1.75	1.75				
7. √ if heated and held at at 50°C for 10 minutes.	✓	✓				
8. secondary pH (at room temp)	7	7				
9. extraction fluid	#2	#2	#2		#1	#1
C. Determination of sample size for leach testing						
1. Particle size reduction? yes/no	NO	NO			NO	NO
2. Weight of sample required	50.0	50.0			25.0	25.0
3. Weight of sample & container (5.6.3.2)						
4. Weight of container & residue (5.6.3.5)						
5. Weight of sample to filter (5.6.3.6)						
6. Weight of filtrate & container(5.6.3.10)						

Method 1311 GL-LB-E-006

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Effective 8/00

7. Weight of container (5.6.3.1)	—	—	—	—	—	—
8. Weight of filtrate (5.6.3.11)	35522001	35432002	Blank		35734001	35734002
D. Determination of the amount of extraction fluid						
1. 20 x % wet solid x wt. sample	1L	1L	0.5L		500	500
E. Record of extraction test (18 ± 2 hours)						
1. extraction start date	01-	03-	01		01-0	3-01
2. extraction start time	1	6:3	0		18:	30
3. starting room temperature	2	2°	C		22	°C
4. extraction stop date	01-	04-	01		01-0	4-01
5. extraction stop time	1	6:3	0		12:	30
6. ending room temperature	2	1°	C		22	°C
7. filtration complete date & time	01-04-0	1 11:	20			
8. pH of filtrate	8.	8.	3			
9. volume of filtrate	500	500	500			
10. pH of filtrate <2 after preservation	✓	✓	✓			
11. Type of preservation	H	NO	3			
12. Volume of preservation (mL)	4	4	1			
13. Preservation Lot Number	2704	T224	10			
14. Bottle Lot Number	C-01	8.50	4 B		922	0701
15. Filter Lot Number	829	1-0	01			
F. [illegible]						
1. volume split from filtrate to be spiked	—				—	
2. Spiking Solution #1 Code						
3. Spiking Solution #2 Code						
4. Volume of #1 added						
5. Volume of #2 added						
G. Extraction Vessel Information (Volatiles Only)						
1. Extraction Vessel Number					11	10
2. Positive Pressure? Yes/No					yes	yes
H. Extraction Tumbler Rotation Speed (rpm)						
1. Tumbler Number	2	—	—		4	—
2. Tumbler Speed	31	—	—		31	—
Extraction Started By:	JL	JL	JL		JL	JL
Extraction Completed By:	JL	JL	JL		JL	JL

(Source Larry P. Jackson, 1993)

Notes and Maintenance

1000146396

Fluid 1 Lot #: MEF001221

pH Temperature: pH- 4.89/20.8°C very Hot Rad

Fluid 2 Lot #: MEF000310

pH Temperature: pH= 2.84/20.6°C

O-ring checked

Prepressure checked at 10-15 psi

Particle Size Reduction Technique Codes:
C – cut M – Crush with a mallet

Logbook ID No: IP-O-

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Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 689-1-T
Sample ID: 33055001
Matrix: MISC. SOLID
Collect Date: 12-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.000191	0.0006	0.002	mg/L	1	AW2	11/03/00	1225	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable		2.02	0.0343	0.100	mg/L	10	RMJ	11/19/00	1352	51690	2
Arsenic, total recoverable		5.04	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	1.15	0.00748	10.0	mg/L	10					
Beryllium, total recoverable		1.88	0.00474	0.050	mg/L	10					
Cadmium, total recoverable		0.971	0.00631	0.100	mg/L	10					
Chromium, total recoverable		18.4	0.0106	0.500	mg/L	10					
Lead, total recoverable		3.92	0.0183	0.500	mg/L	10					
Nickel, total recoverable		4.98	0.0309	0.050	mg/L	10					
Selenium, total recoverable		1.72	0.0236	0.100	mg/L	10					
Silver, total recoverable		0.514	0.00529	0.500	mg/L	10					
Thallium, total recoverable		2.01	0.0393	0.100	mg/L	10					
Vanadium, total recoverable		2.07	0.0089	0.050	mg/L	10					
Zinc, total recoverable		1.81	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result

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Client Sample ID: 689-1-T
Sample ID: 33055001

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Lee M Heath
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Client Sample ID:	689-1-B	Project:	WSRC00497
Sample ID:	33055002	Client ID:	WSRC006
Matrix:	MISC. SOLID		
Collect Date:	12-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.000428	0.0006	0.002	mg/L	1	AW2	11/03/00	1228	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.0262	0.0343	0.100	mg/L	10	RMJ	11/19/00	1357	51690	2
Arsenic, total recoverable	J	0.0608	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.224	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	J	0.00549	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0235	0.00631	0.100	mg/L	10					
Chromium, total recoverable		8.75	0.0106	0.500	mg/L	10					
Lead, total recoverable	J	0.0249	0.0183	0.500	mg/L	10					
Nickel, total recoverable		51.1	0.0309	0.050	mg/L	10					
Selenium, total recoverable		1.72	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.00188	0.00529	0.500	mg/L	10					
Thallium, total recoverable		0.106	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	U	0.00612	0.0089	0.050	mg/L	10					
Zinc, total recoverable		0.314	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 689-1-B
Sample ID: 33055002

Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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Client Sample ID: 689-2-T
Sample ID: 33055003
Matrix: MISC. SOLID
Collect Date: 12-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.000315	0.0006	0.002	mg/L	1	AW2	11/03/00	1230	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.0172	0.0343	0.100	mg/L	10	RMJ	11/19/00	1403	51690	2
Arsenic, total recoverable	J	0.0417	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.223	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	J	0.00527	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0256	0.00631	0.100	mg/L	10					
Chromium, total recoverable		8.67	0.0106	0.500	mg/L	10					
Lead, total recoverable	U	0.00366	0.0183	0.500	mg/L	10					
Nickel, total recoverable		50.2	0.0309	0.050	mg/L	10					
Selenium, total recoverable		1.74	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.00153	0.00529	0.500	mg/L	10					
Thallium, total recoverable		0.119	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	U	0.0057	0.0089	0.050	mg/L	10					
Zinc, total recoverable		0.356	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 689-2-T
Sample ID: 33055003

Project: WSRC00497
Client ID: WSRC006

Parameter	**Qualifier**	**Result**	**DL**	**RL**	**Units**	**DF**	**AnalystDate**	**Time**	**Batch**	**Method**

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Client Sample ID: 689-2-B
Sample ID: 33055004
Matrix: MISC. SOLID
Collect Date: 12-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.00019	0.0006	0.002	mg/L	1	AW2	11/03/00	1232	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.0268	0.0343	0.100	mg/L	10	RMJ	11/19/00	1408	51690	2
Arsenic, total recoverable	J	0.0405	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.227	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	J	0.00501	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0232	0.00631	0.100	mg/L	10					
Chromium, total recoverable		8.70	0.0106	0.500	mg/L	10					
Lead, total recoverable	U	0.0131	0.0183	0.500	mg/L	10					
Nickel, total recoverable		49.9	0.0309	0.050	mg/L	10					
Selenium, total recoverable		1.70	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.000012	0.00529	0.500	mg/L	10					
Thallium, total recoverable		0.111	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	U	0.00502	0.0089	0.050	mg/L	10					
Zinc, total recoverable		0.305	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:
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J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 689-2-B
Sample ID: 33055004
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	696-1-T	Proiect:	WSRC00497
Sample ID:	33055005	Client ID:	WSRC006
Matrix:	MISC. SOLID		
Collect Date:	13-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.000061	0.0006	0.002	mg/L	1	AW2	11/03/00	1234	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.00124	0.0343	0.100	mg/L	10	RMJ	11/19/00	1414	51690	2
Arsenic, total recoverable	J	0.027	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.280	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	U	-0.000236	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0129	0.00631	0.100	mg/L	10					
Chromium, total recoverable	J	0.0162	0.0106	0.500	mg/L	10					
Lead, total recoverable	J	0.0943	0.0183	0.500	mg/L	10					
Nickel, total recoverable	U	0.0232	0.0309	0.050	mg/L	10					
Selenium, total recoverable	U	-0.00155	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.000355	0.00529	0.500	mg/L	10					
Thallium, total recoverable	U	0.0389	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	U	0.00554	0.0089	0.050	mg/L	10					
Zinc, total recoverable		1.62	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:
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U	EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 696-1-T
Sample ID: 33055005
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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Client Sample ID: 696-1-B
Sample ID: 33055006
Matrix: MISC. SOLID
Collect Date: 13-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Mercury Analysis Federal										
TCLP Hg in Solid										
Mercury	U	-0.000067	0.0006	0.002	mg/L	1	AW2 11/03/00	1240	51662	1
Metals Analysis-ICP Federal										
TCLP ICP Metals for Solid										
Antimony, total recoverable	U	-0.0223	0.0343	0.100	mg/L	10	RMJ 11/19/00	1419	51690	2
Arsenic, total recoverable	J	0.0516	0.0257	0.500	mg/L	10				
Barium. total recoverable	J	0.336	0.00748	10.0	mg/L	10				
Beryllium, total recoverable	U	0.00317	0.00474	0.050	mg/L	10				
Cadmium, total recoverable	J	0.0318	0.00631	0.100	mg/L	10				
Chromium, total recoverable		12.7	0.0106	0.500	mg/L	10				
Lead, total recoverable	U	0.0179	0.0183	0.500	mg/L	10				
Nickel, total recoverable		3.92	0.0309	0.050	mg/L	10				
Selenium, total recoverable		0.670	0.0236	0.100	mg/L	10				
Silver, total recoverable	U	0.000544	0.00529	0.500	mg/L	10				
Thallium, total recoverable	J	0.0858	0.0393	0.100	mg/L	10				
Vanadium, total recoverable	J	0.0497	0.0089	0.050	mg/L	10				
Zinc, total recoverable	U	-0.0438	0.0778	0.100	mg/L	20	MNC 11/20/00	1309	51690	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B
3	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected

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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID: 696-1-B
Sample ID: 33055006

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

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Project: HazWaste Contract

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Client Sample ID: 696-2-T
Sample ID: 33055007
Matrix: MISC. SOLID
Collect Date: 13-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	-0.000132	0.0006	0.002	mg/L	1	AW2	11/03/00	1242	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.0131	0.0343	0.100	mg/L	10	RMJ	11/19/00	1425	51690	2
Arsenic, total recoverable	J	0.0368	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.308	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	U	0.00392	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0315	0.00631	0.100	mg/L	10					
Chromium, total recoverable		11.9	0.0106	0.500	mg/L	10					
Lead, total recoverable	U	0.0172	0.0183	0.500	mg/L	10					
Nickel, total recoverable		4.19	0.0309	0.050	mg/L	10					
Selenium, total recoverable		0.704	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.00129	0.00529	0.500	mg/L	10					
Thallium, total recoverable	J	0.0841	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	J	0.0299	0.0089	0.050	mg/L	10					
Zinc, total recoverable	U	-0.0546	0.0778	0.100	mg/L	20	MNC	11/20/00	1314	51690	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B
3	SW846 6010B

Notes:
The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected

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Client Sample ID: 696-2-T
Sample ID: 33055007
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: November 22, 2000

Page 1 of 2

Client Sample ID:	696-2-B	Project:	WSRC00497
Sample ID:	33055008	Client ID:	WSRC006
Matrix:	MISC. SOLID		
Collect Date:	13-OCT-00		
Receive Date:	19-OCT-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	-0.000111	0.0006	0.002	mg/L	1	AW2	11/03/00	1244	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.00496	0.0343	0.100	mg/L	10	RMJ	11/19/00	1441	51690	2
Arsenic, total recoverable	J	0.0495	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.346	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	U	0.00435	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0365	0.00631	0.100	mg/L	10					
Chromium, total recoverable		11.5	0.0106	0.500	mg/L	10					
Lead, total recoverable	U	0.0173	0.0183	0.500	mg/L	10					
Nickel, total recoverable		6.18	0.0309	0.050	mg/L	10					
Selenium, total recoverable		0.716	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	-0.000137	0.00529	0.500	mg/L	10					
Thallium, total recoverable	J	0.0688	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	J	0.0223	0.0089	0.050	mg/L	10					
Zinc, total recoverable	U	-0.0394	0.0778	0.100	mg/L	20	MNC	11/20/00	1320	51690	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B
3	SW846 6010B

Notes:

The Qualifiers in this report are defined as follows :

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J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected

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Project:	HazWaste Contract

Report Date: November 22, 2000

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Client Sample ID:	696-2-B	Project:	WSRC00497
Sample ID:	33055008	Client ID:	WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

Page 1 of 2

Client Sample ID: 696-GRAB
Sample ID: 33055009
Matrix: MISC. SOLID
Collect Date: 13-OCT-00
Receive Date: 19-OCT-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
TCLP Hg in Solid											
Mercury	U	0.000525	0.0006	0.002	mg/L	1	AW2	11/03/00	1246	51662	1
Metals Analysis-ICP Federal											
TCLP ICP Metals for Solid											
Antimony, total recoverable	U	-0.0324	0.0343	0.100	mg/L	10	RMJ	11/19/00	1447	51690	2
Arsenic, total recoverable	J	0.0354	0.0257	0.500	mg/L	10					
Barium. total recoverable	J	0.351	0.00748	10.0	mg/L	10					
Beryllium, total recoverable	U	0.0041	0.00474	0.050	mg/L	10					
Cadmium, total recoverable	J	0.0315	0.00631	0.100	mg/L	10					
Chromium, total recoverable		9.69	0.0106	0.500	mg/L	10					
Lead, total recoverable	U	0.00479	0.0183	0.500	mg/L	10					
Nickel, total recoverable		14.0	0.0309	0.050	mg/L	10					
Selenium, total recoverable		0.775	0.0236	0.100	mg/L	10					
Silver, total recoverable	U	0.00123	0.00529	0.500	mg/L	10					
Thallium, total recoverable	J	0.0721	0.0393	0.100	mg/L	10					
Vanadium, total recoverable	J	0.0177	0.0089	0.050	mg/L	10					
Zinc, total recoverable	U	0.0352	0.0389	0.050	mg/L	10					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 1311	SW846 1311 TCLP Leaching -FEDERAL	JL	10/26/00	1920	50629
SW846 3010A	ICP-TRACE TCLP by SW846 3010A	AJM	10/30/00	1845	51161
SW846 7470A	EPA 7470 Mercury Prep TCLP Liquid Federa	ARD	11/01/00	1630	51164

The following Analytical Methods were performed

Method	Description
1	SW846 7470A
2	SW846 6010B

Notes:
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J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: November 22, 2000

Page 2 of 2

Client Sample ID: 696-GRAB
Sample ID: 33055009

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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QC Summary

Report Date: November 22, 2000
Page 1 of 10

Client : **Westinghouse Savannah Rivr Co.**
Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: **Ms. Janet Crawford**

Workorder: **32957**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography Federal											
Batch 50370											
QC1000120400 32957001 DUP											
Nitrate			38300		39000	mg/kg	2		(0%-33%)	HSC	10/30/00 22:04
Nitrite			11.3		11.4	mg/kg	0 ^		(0%-30%)		10/30/00 18:00
Ortho-phosphate			37.1		29.6	mg/kg	23 ^		(0%-30%)		
QC1000120399 LCS											
Nitrate	49.6				52.3	mg/kg		105	(80%-120%)		10/30/00 17:31
Nitrite	99.3				104	mg/kg		104	(80%-120%)		
Ortho-phosphate	99.3				101	mg/kg		101	(80%-120%)		
QC1000120398 MB											
Nitrate				U	0.00	mg/kg					10/30/00 17:17
Nitrite				U	0.00	mg/kg					
Ortho-phosphate				U	0.00	mg/kg					
QC1000120401 32957001 MS											
Nitrate	50.0		38300		38900	mg/kg		N/A	(70%-130%)		10/30/00 22:19
Nitrite	100		11.3		104	mg/kg		93	(70%-130%)		10/30/00 18:14
Ortho-phosphate	100		37.1		105	mg/kg		68*	(70%-130%)		
Batch 52615											
QC1000127229 32957001 DUP											
Bromide		U	0.00	U	0.00	mg/kg	N/A ^		(0%-30%)	RWS	11/10/00 09:52
Chloride			308		307	mg/kg	0		(0%-30%)		
Fluoride			189		182	mg/kg	3		(0%-30%)		
Sulfate			74000		74400	mg/kg	1		(0%-30%)		11/09/00 17:05
QC1000127228 LCS											
Bromide	99.1				101	mg/kg		102	(80%-120%)		11/09/00 19:00
Chloride	99.1				93.4	mg/kg		94	(80%-120%)		
Fluoride	99.1				104	mg/kg		105	(80%-120%)		
Sulfate	198				190	mg/kg		96	(80%-120%)		
QC1000127227 MB											
Bromide				U	0.00	mg/kg					11/09/00 19:14
Chloride				U	0.00	mg/kg					
Fluoride				U	0.00	mg/kg					
Sulfate				U	0.00	mg/kg					
QC1000127230 32957001 MS											
Bromide	100	U	0.00		149	mg/kg		149*	(70%-130%)		11/10/00 10:07
Chloride	100		308		391	mg/kg		84	(70%-130%)		
Fluoride	100		189		193	mg/kg		4*	(70%-130%)		
Sulfate	200		74000		72400	mg/kg		N/A	(70%-130%)		11/09/00 17:19
Batch 52629											
QC1000127233 32957001 DUP											
Oxalate		U	0.00	U	0.00	mg/kg	N/A ^		(0%-30%)	RWS	11/08/00 19:24
QC1000127232 LCS											
Oxalate	89.3				89.5	mg/kg		100	(80%-120%)		11/08/00 18:44
QC1000127231 MB											

QC Summary

Workorder: **32957**

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography Federal											
Batch 52629											
Oxalate				U	0.00	mg/kg					
QC1000127234 32957001 MS											
Oxalate	90.1	U	0.00	U	0.00	mg/kg		0*	(70%-130%)		11/08/00 19:45
Mercury Analysis Federal											
Batch 50427											
QC1000120413 LCS											
Mercury	3130				3160	ug/kg		101	(58%-134%)	AW2	10/25/00 11:46
QC1000120410 MB											
Mercury				U	-5.88	ug/kg					10/25/00 11:41
QC1000120411 32957001 MS											
Mercury	89.3		58.0		149	ug/kg		102	(65%-136%)		10/25/00 11:50
QC1000120414 33026007 MS											
Mercury	101	U	1.59		105	ug/kg		103	(65%-136%)		10/25/00 12:13
QC1000120412 32957001 MSD											
Mercury	95.4		58.0		152	ug/kg	2	98	(0%-17%)		10/25/00 11:51
QC1000120415 33026007 MSD											
Mercury	95.4	U	1.59		108	ug/kg	3	112	(0%-17%)		10/25/00 12:14
Metals Analysis-ICP Federal											
Batch 50462											
QC1000120463 LCS											
Aluminum, total recoverable	7980000				8850000	ug/kg		111	(64%-127%)	RMJ	11/17/00 11:33
Antimony, total recoverable	32300				81100	ug/kg		251*	(46%-171%)		
Arsenic, total recoverable	132000				132000	ug/kg		100	(70%-150%)		
Barium. total recoverable	136000				157000	ug/kg		115	(79%-154%)		
Beryllium, total recoverable	95900				99900	ug/kg		104	(75%-129%)		
Boron, total recoverable	115000				112000	ug/kg		97	(29%-153%)		
Cadmium, total recoverable	117000				117000	ug/kg		100	(78%-122%)		
Calcium, total recoverable	11900000				11800000	ug/kg		99	(79%-150%)		
Chromium, total recoverable	91000				92300	ug/kg		101	(69%-143%)		
Cobalt, total recoverable	114000				114000	ug/kg		100	(75%-138%)		
Copper, total recoverable	121000				129000	ug/kg		106	(79%-139%)		
Iron, total recoverable	11400000				15200000	ug/kg		133	(52%-176%)		
Lead, total recoverable	144000				140000	ug/kg		97	(77%-129%)		
Magnesium, total recoverable	3010000				3080000	ug/kg		102	(65%-126%)		
Manganese, total recoverable	310000				341000	ug/kg		110	(76%-136%)		
Molybdenum	94900				99500	ug/kg		105	(80%-141%)		
Nickel, total recoverable	155000				161000	ug/kg		104	(77%-141%)		
Potassium, total recoverable	3030000				3020000	ug/kg		100	(63%-141%)		
Selenium, total recoverable	88800				81500	ug/kg		92	(78%-127%)		
Silver, total recoverable	119000				122000	ug/kg		102	(75%-125%)		
Sodium, total recoverable	798000				853000	ug/kg		107	(53%-132%)		
Strontium	79800				94400	ug/kg		118	(70%-130%)		
Thallium, total recoverable	142000				143000	ug/kg		101	(56%-149%)		
Tin, total recoverable	101000				100000	ug/kg		99	(70%-130%)		
Titanium	163000				316000	ug/kg		194*	(62%-138%)		
Uranium				U	-4100	ug/kg			(70%-130%)		
Vanadium, total recoverable	76500				86400	ug/kg		113	(80%-127%)		
Zinc, total recoverable	58600				59900	ug/kg		102	(70%-130%)		

QC Summary

Workorder: 32957

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 50462											
QC1000120460 MB											
Aluminum, total recoverable			J	1100	ug/kg					11/17/00	11:27
Antimony, total recoverable			U	84.9	ug/kg						
Arsenic, total recoverable			U	133	ug/kg						
Barium. total recoverable			U	7.98	ug/kg						
Beryllium, total recoverable			U	2.21	ug/kg						
Boron, total recoverable			U	67.2	ug/kg						
Cadmium, total recoverable			U	36.3	ug/kg						
Calcium, total recoverable			U	1410	ug/kg						
Chromium, total recoverable			U	47.9	ug/kg						
Cobalt, total recoverable			U	-90.6	ug/kg						
Copper, total recoverable			U	-73	ug/kg						
Iron, total recoverable			J	3110	ug/kg						
Lead, total recoverable			U	-52.5	ug/kg						
Magnesium, total recoverable			U	347	ug/kg						
Manganese, total recoverable			U	94.9	ug/kg						
Molybdenum			U	45.1	ug/kg						
Nickel, total recoverable			U	121	ug/kg						
Potassium, total recoverable			U	1540	ug/kg						
Selenium, total recoverable			U	-12.1	ug/kg						
Silver, total recoverable			U	-54.9	ug/kg						
Sodium, total recoverable			J	4640	ug/kg						
Strontium			U	1.93	ug/kg						
Thallium, total recoverable			U	-772	ug/kg						
Tin, total recoverable			J	376	ug/kg						
Titanium			U	48.3	ug/kg						
Uranium			U	-1180	ug/kg						
Vanadium, total recoverable			U	24.9	ug/kg						
Zinc, total recoverable			U	117	ug/kg						
QC1000120461 32957001 MS											
Aluminum, total recoverable	227000	13800000		13900000	ug/kg		71	(70%-130%)		11/17/00	11:49
Antimony, total recoverable	22700	1890		14300	ug/kg		55*	(70%-130%)			
Arsenic, total recoverable	22700	1410000		1390000	ug/kg		-99 *	(72%-114%)			
Barium. total recoverable	22700	143000		156000	ug/kg		57*	(66%-127%)			
Beryllium, total recoverable	22700	18600		32800	ug/kg		63*	(75%-119%)			
Boron, total recoverable	22700	277000		283000	ug/kg		26*	(70%-130%)			
Cadmium, total recoverable	22700	6470		20000	ug/kg		59*	(76%-118%)			
Calcium, total recoverable	227000	18100000		17700000	ug/kg		-161 *	(68%-125%)			
Chromium, total recoverable	22700	340000		351000	ug/kg		47*	(74%-122%)			
Cobalt, total recoverable	22700	2020000		1970000	ug/kg		-194 *	(71%-123%)			
Copper, total recoverable	22700	1250000		1240000	ug/kg		-73 *	(73%-124%)			
Iron, total recoverable	227000	77300000		79600000	ug/kg		980*	(70%-130%)		11/17/00	13:22
Lead, total recoverable	22700	678000		667000	ug/kg		-51 *	(71%-123%)		11/17/00	11:49
Magnesium, total recoverable	227000	34500000		34100000	ug/kg		-161 *	(70%-130%)			
Manganese, total recoverable	22700	7920000		8190000	ug/kg		1170*	(70%-130%)		11/17/00	15:00
Molybdenum	22700	420000		424000	ug/kg		N/A	(70%-130%)		11/17/00	11:49
Nickel, total recoverable	22700	2920000		2860000	ug/kg		-267 *	(74%-121%)			
Potassium, total recoverable	227000	24900000		25300000	ug/kg		180*	(65%-130%)		11/17/00	13:22

QC Summary

Workorder: 32957

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 50462											
Selenium, total recoverable	22700	51400		63100	ug/kg		52*	(67%-113%)			
Silver, total recoverable	22700	1180		18100	ug/kg		74*	(76%-124%)			
Sodium, total recoverable	227000	66500000		68400000	ug/kg		839*	(86%-123%)		11/17/00	13:22
Strontium	22700	74900		89100	ug/kg		62*	(70%-130%)		11/17/00	11:49
Thallium, total recoverable	22700	2840		17500	ug/kg		64*	(71%-117%)			
Tin, total recoverable	22700	8860		23900	ug/kg		66*	(70%-130%)			
Titanium	22700	141000		157000	ug/kg		N/A	(70%-130%)			
Uranium	22700	599000		603000	ug/kg		N/A	(70%-130%)			
Vanadium, total recoverable	22700	300000		311000	ug/kg		49*	(67%-130%)			
Zinc, total recoverable	22700	412000		401000	ug/kg		-50 *	(70%-124%)			
QC1000120462 32957001 MSD											
Aluminum, total recoverable	227000	13800000		13700000	ug/kg	2	-30	(0%-20%)		11/17/00	11:55
Antimony, total recoverable	22700	1890		14500	ug/kg	1	55	(0%-28%)			
Arsenic, total recoverable	22700	1410000		1370000	ug/kg	2	-201	(0%-16%)			
Barium. total recoverable	22700	143000		154000	ug/kg	1	47	(0%-23%)			
Beryllium, total recoverable	22700	18600		32700	ug/kg	0	62	(0%-17%)			
Boron, total recoverable	22700	277000		279000	ug/kg	1	11	(0%-20%)			
Cadmium, total recoverable	22700	6470		20100	ug/kg	1	60	(0%-10%)			
Calcium, total recoverable	227000	18100000		17500000	ug/kg	1	-272	(0%-25%)			
Chromium, total recoverable	22700	340000		346000	ug/kg	1	26	(0%-19%)			
Cobalt, total recoverable	22700	2020000		1940000	ug/kg	2	-340	(0%-12%)			
Copper, total recoverable	22700	1250000		1210000	ug/kg	2	-182	(0%-17%)			
Iron, total recoverable	227000	77300000		72900000	ug/kg	9	-1960	(0%-20%)		11/17/00	13:28
Lead, total recoverable	22700	678000		658000	ug/kg	1	-91	(0%-20%)		11/17/00	11:55
Magnesium, total recoverable	227000	34500000		33600000	ug/kg	2	-417	(0%-20%)			
Manganese, total recoverable	22700	7920000		7950000	ug/kg	3	138	(0%-20%)		11/17/00	15:05
Molybdenum	22700	420000		417000	ug/kg	2	N/A	(0%-20%)		11/17/00	11:55
Nickel, total recoverable	22700	2920000		2820000	ug/kg	1	-431	(0%-14%)			
Potassium, total recoverable	227000	24900000		23400000	ug/kg	8	-658	(0%-26%)		11/17/00	13:28
Selenium, total recoverable	22700	51400		62900	ug/kg	0	51	(0%-17%)		11/17/00	11:55
Silver, total recoverable	22700	1180		17700	ug/kg	2	73	(0%-15%)			
Sodium, total recoverable	227000	66500000		62200000	ug/kg	10	-1890	(0%-11%)		11/17/00	13:28
Strontium	22700	74900		87900	ug/kg	1	57	(0%-20%)		11/17/00	11:55
Thallium, total recoverable	22700	2840		17600	ug/kg	1	65	(0%-10%)			
Tin, total recoverable	22700	8860		23900	ug/kg	0	66	(0%-20%)			
Titanium	22700	141000		155000	ug/kg	1	N/A	(0%-20%)			
Uranium	22700	599000		592000	ug/kg	2	N/A	(0%-20%)			
Vanadium, total recoverable	22700	300000		307000	ug/kg	1	32	(0%-21%)			
Zinc, total recoverable	22700	412000		396000	ug/kg	1	-71	(0%-25%)			
QC1000120464 32957001 SDILT											
Aluminum, total recoverable		139000		38300	ug/L	37.9				11/17/00	11:44
Antimony, total recoverable		19.1	J	2.73	ug/L	28.5					
Arsenic, total recoverable		14300		4190	ug/L	47.1					
Barium. total recoverable		1450		397	ug/L	37					
Beryllium, total recoverable		188		53.3	ug/L	42					
Boron, total recoverable		2800		799	ug/L	42.8					
Cadmium, total recoverable		65.4		18.2	ug/L	38.9					
Calcium, total recoverable		183000		54000	ug/L	47.8					

QC Summary

Workorder: 32957

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 50462											
Chromium, total recoverable		3440		996	ug/L	45					
Cobalt, total recoverable		20400		6020	ug/L	47.6					
Copper, total recoverable		12600		3290	ug/L	30					
Iron, total recoverable		156000		34200	ug/L	9.46				11/17/00	13:17
Lead, total recoverable		6850		2030	ug/L	48.2				11/17/00	11:44
Magnesium, total recoverable		348000		100000	ug/L	43.6					
Manganese, total recoverable		8000		1930	ug/L	20.8				11/17/00	14:54
Molybdenum		4240		1190	ug/L	40.7				11/17/00	11:44
Nickel, total recoverable		29500		9030	ug/L	53					
Potassium, total recoverable		50300		12100	ug/L	20.1				11/17/00	13:17
Selenium, total recoverable		519		158	ug/L	51.9				11/17/00	11:44
Silver, total recoverable		11.9	J	3.13	ug/L	31.9					
Sodium, total recoverable		134000		26300	ug/L	1.89				11/17/00	13:17
Strontium		757		210	ug/L	38.7				11/17/00	11:44
Thallium, total recoverable		28.7		16.6	ug/L	190					
Tin, total recoverable		89.4		26.5	ug/L	47.9					
Titanium		1420		397	ug/L	39.5					
Uranium		6050		1630	ug/L	34.6					
Vanadium, total recoverable		3030		855	ug/L	41.1					
Zinc, total recoverable		4170		1300	ug/L	55.7					
Rad Gamma Spec											
Batch 52273											
QC1000126506 33060001 DUP											
Actinium-227			U	0.0454 +/-0.239	pCi/g	N/A			SRB	11/12/00	11:35
Actinium-228			U	0.0101 +/-0.159	pCi/g	N/A					
Antimony-124			U	-0.00796 +/-0.0341	pCi/g	N/A					
Antimony-125	U	0.0424 +/-0.0613	U	0.0202 +/-0.0593	pCi/g	71 ^					
Barium-133			U	-0.0377 +/-0.0332	pCi/g	N/A					
Californium-249	U	0.00498 +/-0.0238	U	0.0043 +/-0.0243	pCi/g	15 ^					
Californium-251	U	0.0177 +/-0.0919	U	-0.0429 +/-0.0748	pCi/g	N/A ^					
Cerium-141			U	0.0117 +/-0.0571	pCi/g	N/A					
Cerium-144	U	0.0306 +/-0.129	U	-0.00348 +/-0.132	pCi/g	N/A ^					
Cesium-134			U	-0.00256 +/-0.0233	pCi/g	N/A					
Cesium-135			U	-0.00143 +/-0.0915	pCi/g	N/A					
Cesium-137	U	-0.0128 +/-0.0267	R4	0.0657 +/-0.0335	pCi/g	N/A		(0%-20%)			

QC Summary

Workorder: 32957

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 52273											
Cobalt-57			U	0.00123 +/-0.0163	pCi/g	N/A					
Cobalt-58			U	-0.0296 +/-0.027	pCi/g	N/A					
Cobalt-60		U 0.023 +/-0.034	U	0.0174 +/-0.0244	pCi/g	28 ^					
Europium-152			U	0.0228 +/-0.0589	pCi/g	N/A					
Europium-154			U	0.0613 +/-0.145	pCi/g	N/A					
Lead-212			U	0.021 +/-0.066	pCi/g	N/A					
Manganese-54			U	-0.0175 +/-0.0252	pCi/g	N/A					
Neptunium-239			U	-0.0696 +/-0.120	pCi/g	N/A					
Niobium-94			U	-0.0215 +/-0.0218	pCi/g	N/A					
Potassium-40			U	0.116 +/-0.347	pCi/g	N/A					
Promethium-144			U	-0.000682 +/-0.0219	pCi/g	N/A					
Promethium-146			U	0.0127 +/-0.0274	pCi/g	N/A					
Radium-226			U	0.0292 +/-0.0492	pCi/g	N/A					
Radium-228			U	0.0101 +/-0.159	pCi/g	N/A					
Ruthenium-103		U 0.00438 +/-0.0303	U	-0.0263 +/-0.0331	pCi/g	N/A ^					
Ruthenium-106		U 0.113 +/-0.205	U	-0.0227 +/-0.211	pCi/g	N/A ^					
Sodium-22			U	0.0222 +/-0.0522	pCi/g	N/A					
Tin-113			U	0.0343 +/-0.0308	pCi/g	N/A					
Tin-126		U 0.0258 +/-0.0396	U	0.0519 +/-0.0451	pCi/g	67 ^					
Yttrium-88			U	0.0106 +/-0.0267	pCi/g	N/A					
Zinc-65			U	-0.0482 +/-0.0506	pCi/g	N/A					
Zirconium-95			U	0.0379 +/-0.0515	pCi/g	N/A					
QC1000126507 LCS											
Actinium-227			U	0.229 +/-6.14	pCi/g					11/08/00	18:37
Actinium-228			U	5.19	pCi/g						

QC Summary

Workorder: 32957

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 52273											
				+/-4.82							
Antimony-124			U	-9.180E+07 +/-1.310E+08	pCi/g						
Antimony-125			U	-0.859 +/-5.35	pCi/g						
Barium-133			U	0.0907 +/-1.07	pCi/g						
Californium-249			U	-0.495 +/-0.675	pCi/g						
Californium-251			U	-0.15 +/-1.42	pCi/g						
Cerium-141			U	7.480E+14 +/-1.840E+15	pCi/g						
Cerium-144			U	-19.1 +/-146	pCi/g						
Cesium-134			U	0.0897 +/-2.40	pCi/g						
Cesium-135			U	1.79 +/-2.38	pCi/g						
Cesium-137	441			458 +/-3.07	pCi/g		104	(75%-125%)			
Cobalt-57				389 +/-34.5	pCi/g						
Cobalt-58			U	-1.160E+05 +/-8.680E+06	pCi/g						
Cobalt-60				687 +/-5.37	pCi/g						
Europium-152			U	-1.52 +/-1.89	pCi/g						
Europium-154			U	-0.0429 +/-1.35	pCi/g						
Lead-212			U	0.943 +/-3.88	pCi/g						
Manganese-54			U	16.3 +/-26.7	pCi/g						
Neptunium-239			U	-0.627 +/-2.31	pCi/g						
Niobium-94			U	-0.0545 +/-0.523	pCi/g						
Potassium-40			U	1.62 +/-1.92	pCi/g						
Promethium-144			U	-2.27 +/-12.8	pCi/g						
Promethium-146			U	0.208 +/-1.54	pCi/g						
Radium-226			U	1.20 +/-1.08	pCi/g						

QC Summary

Workorder: 32957

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 52273											
Radium-228			U	5.19 +/-4.82	pCi/g						
Ruthenium-103			U	-1.670E+12 +/-4.130E+12	pCi/g						
Ruthenium-106			U	-52 +/-124	pCi/g						
Sodium-22			U	-0.0488 +/-1.14	pCi/g						
Tin-113			U	4220 +/-17300	pCi/g						
Tin-126				116 +/-1.99	pCi/g						
Yttrium-88			U	-5330 +/-10900	pCi/g						
Zinc-65			U	118 +/-180	pCi/g						
Zirconium-95			U	-2.800E+07 +/-8.090E+07	pCi/g						
QC1000126505 MB											
Actinium-227			U	-0.0193 +/-0.186	pCi/g					11/13/00	08:48
Actinium-228			U	0.064 +/-0.184	pCi/g						
Antimony-124			U	-0.00484 +/-0.0195	pCi/g						
Antimony-125			U	0.0178 +/-0.044	pCi/g						
Barium-133			U	-0.0087 +/-0.0211	pCi/g						
Californium-249			U	-0.00122 +/-0.0211	pCi/g						
Californium-251			U	-0.0169 +/-0.0569	pCi/g						
Cerium-141			U	-0.0045 +/-0.0222	pCi/g						
Cerium-144			U	-0.0124 +/-0.0819	pCi/g						
Cesium-134			U	0.0095 +/-0.0198	pCi/g						
Cesium-135			U	-0.0409 +/-0.074	pCi/g						
Cesium-137			U	0.000736 +/-0.0172	pCi/g						
Cobalt-57			U	-0.0041 +/-0.00996	pCi/g						
Cobalt-58			U	-0.00286 +/-0.0171	pCi/g						
Cobalt-60			U	0.0161	pCi/g						

QC Summary

Workorder: 32957

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 52273											
				+/-0.0202							
Europium-152			U	0.00648 +/-0.0441	pCi/g						
Europium-154			U	-0.00677 +/-0.0553	pCi/g						
Lead-212			U	0.0299 +/-0.0375	pCi/g						
Manganese-54			U	0.0188 +/-0.0209	pCi/g						
Neptunium-239			U	-0.00351 +/-0.0762	pCi/g						
Niobium-94			U	0.00508 +/-0.0151	pCi/g						
Potassium-40			U	0.133 +/-0.305	pCi/g						
Promethium-144			U	0.00557 +/-0.025	pCi/g						
Promethium-146			U	-0.0146 +/-0.0195	pCi/g						
Radium-226			U	0.0204 +/-0.0606	pCi/g						
Radium-228			U	0.064 +/-0.184	pCi/g						
Ruthenium-103			U	0.00396 +/-0.0158	pCi/g						
Ruthenium-106			U	-0.027 +/-0.137	pCi/g						
Sodium-22			U	-0.00256 +/-0.0197	pCi/g						
Tin-113			U	-0.00513 +/-0.0216	pCi/g						
Tin-126			U	0.00912 +/-0.0285	pCi/g						
Yttrium-88			U	-0.0083 +/-0.0209	pCi/g						
Zinc-65			U	-0.0232 +/-0.0353	pCi/g						
Zirconium-95			U	-0.00614 +/-0.0304	pCi/g						

Notes:
The Qualifiers in this report are defined as follows:

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result

QC Summary

Workorder: 32957

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

U EPA Functional Guideline Code:Result < MDL

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

QC Summary

Report Date: November 22, 2000
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Client : **Westinghouse Savannah Rivr Co.**
Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802

Contact: **Ms. Janet Crawford**

Workorder: **33055**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Mercury Analysis Federal											
Batch 51662											
QC1000123142 LCS											
Mercury	0.020				0.0182	mg/L		91	(82%-124%)	AW2	11/03/00 12:21
QC1000123161 LCSD											
Mercury	0.020				0.019	mg/L	4	95	(0%-16%)		11/03/00 12:23
QC1000123141 MB											
Mercury				U	-0.000141	mg/L					11/03/00 12:15
QC1000123139 33055009 MS											
Mercury	0.020	U	0.000525		0.0207	mg/L		101	(74%-132%)		11/03/00 12:48
QC1000123140 33055009 MSD											
Mercury	0.020	U	0.000525		0.0207	mg/L	0	101	(0%-16%)		11/03/00 12:50
QC1000121676 TB											
Mercury				U	-0.000277	mg/L					11/03/00 12:19
QC1000122008 TB											
Mercury				U	-0.000279	mg/L					11/03/00 12:17
Metals Analysis-ICP Federal											
Batch 51690											
QC1000123122 32877005 DUP											
Antimony, total recoverable				U	-0.0252	mg/L	N/A		(0%-5%)	RMJ	11/19/00 13:24
Arsenic, total recoverable			0.0554		0.0708	mg/L	24*		(0%-6%)		
Barium. total recoverable			0.327		0.328	mg/L	1		(0%-8%)		
Beryllium, total recoverable				U	0.00459	mg/L	N/A		(0%-12%)		
Cadmium, total recoverable		J	0.0299	J	0.0307	mg/L	N/A		(0%-7%)		
Chromium, total recoverable			13.2		13.2	mg/L	0		(0%-15%)		
Lead, total recoverable		J	0.0188	J	0.0225	mg/L	N/A		(0%-14%)		
Nickel, total recoverable					3.03	mg/L	N/A		(0%-11%)		
Selenium, total recoverable			0.726		0.716	mg/L	1		(0%-11%)		
Silver, total recoverable		U	0.002	U	0.00236	mg/L	N/A ^		(0%-17%)		
Thallium, total recoverable				J	0.0637	mg/L	N/A		(0%-5%)		
Vanadium, total recoverable				J	0.0488	mg/L	N/A		(0%-20%)		
Zinc, total recoverable		U	-0.0576	U	-0.055	mg/L	N/A ^		(0%-20%)	MNC	11/20/00 12:52
QC1000123124 LCS											
Antimony, total recoverable	2.00				1.99	mg/L		99	(80%-116%)	RMJ	11/19/00 12:56
Arsenic, total recoverable	5.00				4.91	mg/L		98	(80%-117%)		
Barium. total recoverable	10.0				10.1	mg/L		101	(87%-116%)		
Beryllium, total recoverable	2.00				1.94	mg/L		97	(89%-116%)		
Cadmium, total recoverable	1.00				0.984	mg/L		98	(88%-117%)		
Chromium, total recoverable	5.00				4.99	mg/L		100	(88%-117%)		
Lead, total recoverable	5.00				4.93	mg/L		99	(89%-117%)		
Nickel, total recoverable	2.00				1.97	mg/L		99	(88%-119%)		
Selenium, total recoverable	1.00				0.985	mg/L		99	(87%-114%)		
Silver, total recoverable	0.500				0.498	mg/L		100	(80%-119%)		
Thallium, total recoverable	2.00				1.93	mg/L		97	(90%-118%)		
Vanadium, total recoverable	2.00				2.02	mg/L		101	(89%-115%)		

QC Summary

Workorder: 33055

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal												
Batch 51690												
Zinc, total recoverable	2.00				1.92	mg/L		96	(89%-117%)			
QC1000123160 LCSD												
Antimony, total recoverable	2.00				1.79	mg/L	10	90	(0%-20%)		11/19/00	13:02
Arsenic, total recoverable	5.00				4.37	mg/L	12	88	(0%-20%)			
Barium. total recoverable	10.0				8.98	mg/L	12	90	(0%-20%)			
Beryllium, total recoverable	2.00				1.73	mg/L	11	87	(0%-20%)			
Cadmium, total recoverable	1.00				0.883	mg/L	11	88	(0%-20%)			
Chromium, total recoverable	5.00				4.46	mg/L	11	89	(0%-20%)			
Lead, total recoverable	5.00				4.39	mg/L	12	88	(0%-20%)			
Nickel, total recoverable	2.00				1.76	mg/L	12	88	(0%-20%)			
Selenium, total recoverable	1.00				0.877	mg/L	12	88	(0%-20%)			
Silver, total recoverable	0.500				0.448	mg/L	11	90	(0%-20%)			
Thallium, total recoverable	2.00				1.72	mg/L	12	86	(0%-20%)			
Vanadium, total recoverable	2.00				1.81	mg/L	11	91	(0%-20%)			
Zinc, total recoverable	2.00				1.71	mg/L	12	85	(0%-20%)			
QC1000123123 MB												
Antimony, total recoverable				U	-0.00202	mg/L					11/19/00	12:40
Arsenic, total recoverable				U	0.0123	mg/L						
Barium. total recoverable				U	0.000218	mg/L						
Beryllium, total recoverable				U	-0.000033	mg/L						
Cadmium, total recoverable				U	0.0013	mg/L						
Chromium, total recoverable				U	0.000469	mg/L						
Lead, total recoverable				U	-0.000653	mg/L						
Nickel, total recoverable				U	0.00203	mg/L						
Selenium, total recoverable				U	0.000882	mg/L						
Silver, total recoverable				U	0.000673	mg/L						
Thallium, total recoverable				U	0.0143	mg/L						
Vanadium, total recoverable				U	0.000002	mg/L						
Zinc, total recoverable				U	0.00221	mg/L						
QC1000123119 32877005 MS												
Antimony, total recoverable	2.00				2.02	mg/L		101	(76%-124%)		11/19/00	13:30
Arsenic, total recoverable	5.00		0.0554		5.00	mg/L		99	(85%-118%)			
Barium. total recoverable	10.0		0.327		1.03	mg/L		7*	(90%-113%)			
Beryllium, total recoverable	2.00				1.86	mg/L		93	(88%-116%)			
Cadmium, total recoverable	1.00	J	0.0299		0.955	mg/L		93	(89%-116%)			
Chromium, total recoverable	5.00		13.2		18.1	mg/L		98	(88%-112%)			
Lead, total recoverable	5.00	J	0.0188		3.87	mg/L		77*	(85%-118%)			
Nickel, total recoverable	2.00				4.91	mg/L		95	(90%-118%)			
Selenium, total recoverable	1.00		0.726		1.72	mg/L		99	(84%-112%)			
Silver, total recoverable	0.500	U	0.002		0.514	mg/L		102	(89%-120%)			
Thallium, total recoverable	2.00				1.98	mg/L		96	(87%-115%)			
Vanadium, total recoverable	2.00				2.03	mg/L		99	(89%-114%)			
Zinc, total recoverable	2.00	U	-0.0576		1.94	mg/L		97	(91%-114%)	MNC	11/20/00	12:58
QC1000123125 33055009 MS												
Antimony, total recoverable	2.00	U	-0.0324		2.06	mg/L		103	(76%-124%)	RMJ	11/19/00	14:58
Arsenic, total recoverable	5.00	J	0.0354		5.03	mg/L		100	(85%-118%)			
Barium. total recoverable	10.0	J	0.351		1.09	mg/L		7*	(90%-113%)			
Beryllium, total recoverable	2.00	U	0.0041		1.88	mg/L		94	(88%-116%)			

QC Summary

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal												
Batch 51690												
Cadmium, total recoverable	1.00	J	0.0315		0.968	mg/L		94	(89%-116%)			
Chromium, total recoverable	5.00		9.69		14.6	mg/L		98	(88%-112%)			
Lead, total recoverable	5.00	U	0.00479		3.92	mg/L		78*	(85%-118%)			
Nickel, total recoverable	2.00		14.0		16.0	mg/L		99	(90%-118%)			
Selenium, total recoverable	1.00		0.775		1.80	mg/L		103	(84%-112%)			
Silver, total recoverable	0.500	U	0.00123		0.522	mg/L		104	(89%-120%)			
Thallium, total recoverable	2.00	J	0.0721		1.99	mg/L		96	(87%-115%)			
Vanadium, total recoverable	2.00	J	0.0177		2.05	mg/L		102	(89%-114%)			
Zinc, total recoverable	2.00	U	0.0352		1.94	mg/L		95	(91%-114%)			
QC1000123120 32877005 MSD												
Antimony, total recoverable	2.00				2.07	mg/L	3	104	(0%-7%)		11/19/00	13:46
Arsenic, total recoverable	5.00		0.0554		5.11	mg/L	2	101	(0%-7%)			
Barium. total recoverable	10.0		0.327		1.06	mg/L	2	7	(0%-6%)			
Beryllium, total recoverable	2.00				1.89	mg/L	2	95	(0%-7%)			
Cadmium, total recoverable	1.00	J	0.0299		0.971	mg/L	2	94	(0%-7%)			
Chromium, total recoverable	5.00		13.2		18.5	mg/L	2	106	(0%-7%)			
Lead, total recoverable	5.00	J	0.0188		3.97	mg/L	2	79	(0%-7%)			
Nickel, total recoverable	2.00				5.00	mg/L	2	99	(0%-6%)			
Selenium, total recoverable	1.00		0.726		1.75	mg/L	2	103	(0%-7%)			
Silver, total recoverable	0.500	U	0.002		0.523	mg/L	2	104	(0%-7%)			
Thallium, total recoverable	2.00				2.01	mg/L	2	98	(0%-8%)			
Vanadium, total recoverable	2.00				2.08	mg/L	2	102	(0%-7%)			
Zinc, total recoverable	2.00	U	-0.0576		1.95	mg/L	0	97	(0%-8%)	MNC	11/20/00	13:03
QC1000123126 33055009 MSD												
Antimony, total recoverable	2.00	U	-0.0324		2.05	mg/L	1	102	(0%-7%)	RMJ	11/19/00	15:04
Arsenic, total recoverable	5.00	J	0.0354		5.04	mg/L	0	100	(0%-7%)			
Barium. total recoverable	10.0	J	0.351		1.17	mg/L	6	8	(0%-6%)			
Beryllium, total recoverable	2.00	U	0.0041		1.88	mg/L	0	94	(0%-7%)			
Cadmium, total recoverable	1.00	J	0.0315		0.967	mg/L	0	94	(0%-7%)			
Chromium, total recoverable	5.00		9.69		14.6	mg/L	0	99	(0%-7%)			
Lead, total recoverable	5.00	U	0.00479		3.93	mg/L	0	78	(0%-7%)			
Nickel, total recoverable	2.00		14.0		16.0	mg/L	0	100	(0%-6%)			
Selenium, total recoverable	1.00		0.775		1.79	mg/L	1	101	(0%-7%)			
Silver, total recoverable	0.500	U	0.00123		0.519	mg/L	1	104	(0%-7%)			
Thallium, total recoverable	2.00	J	0.0721		2.03	mg/L	2	98	(0%-8%)			
Vanadium, total recoverable	2.00	J	0.0177		2.05	mg/L	0	102	(0%-7%)			
Zinc, total recoverable	2.00	U	0.0352		1.95	mg/L	0	96	(0%-8%)			
QC1000123121 32877005 SDILT												
Antimony, total recoverable				U	-0.404	ug/L	N/A				11/19/00	13:19
Arsenic, total recoverable			5.54	U	1.49	ug/L	34.6					
Barium. total recoverable			32.7		6.67	ug/L	2.08					
Beryllium, total recoverable				U	0.0455	ug/L	N/A					
Cadmium, total recoverable		J	2.99	J	0.659	ug/L	10.4					
Chromium, total recoverable			1320		279	ug/L	5.71					
Lead, total recoverable		J	1.88	U	1.55	ug/L	312					
Nickel, total recoverable					64.1	ug/L	N/A					
Selenium, total recoverable			72.6		14.6	ug/L	.437					
Silver, total recoverable		U	0.200	U	0.288	ug/L	620					

QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 51690											
Thallium, total recoverable			U	2.85	ug/L	N/A					
Vanadium, total recoverable			J	1.19	ug/L	N/A					
Zinc, total recoverable	U	-2.88	U	1.06	ug/L	-284			MNC	11/20/00	12:46
QC1000123127 33055009 SDILT											
Antimony, total recoverable	U	-3.24	U	-0.227	ug/L	-64.9			RMJ	11/19/00	14:52
Arsenic, total recoverable	J	3.54	U	1.43	ug/L	103					
Barium. total recoverable	J	35.1		6.95	ug/L	.871					
Beryllium, total recoverable	U	0.410	U	0.0661	ug/L	19.4					
Cadmium, total recoverable	J	3.15	J	0.767	ug/L	21.6					
Chromium, total recoverable		969		199	ug/L	2.59					
Lead, total recoverable	U	0.479	U	1.08	ug/L	1020					
Nickel, total recoverable		1400		290	ug/L	3.82					
Selenium, total recoverable		77.5		15.0	ug/L	3.22					
Silver, total recoverable	U	0.123	U	0.159	ug/L	545					
Thallium, total recoverable	J	7.21	U	1.24	ug/L	14.1					
Vanadium, total recoverable	J	1.77	U	0.501	ug/L	41.3					
Zinc, total recoverable	U	3.52	U	0.883	ug/L	25.4					
QC1000121676 TB											
Antimony, total recoverable			U	0.00285	mg/L					11/19/00	12:45
Arsenic, total recoverable			U	0.00564	mg/L						
Barium. total recoverable			U	0.00139	mg/L						
Beryllium, total recoverable			U	-0.000281	mg/L						
Cadmium, total recoverable			U	0.00215	mg/L						
Chromium, total recoverable			U	0.00403	mg/L						
Lead, total recoverable			U	0.0177	mg/L						
Nickel, total recoverable			U	0.00785	mg/L						
Selenium, total recoverable			U	-0.00584	mg/L						
Silver, total recoverable			U	0.00162	mg/L						
Thallium, total recoverable			U	0.0137	mg/L						
Vanadium, total recoverable			U	0.000688	mg/L						
Zinc, total recoverable			U	0.00332	mg/L						
QC1000122008 TB											
Antimony, total recoverable			U	-0.0135	mg/L					11/19/00	12:51
Arsenic, total recoverable			U	0.0165	mg/L						
Barium. total recoverable			U	0.00152	mg/L						
Beryllium, total recoverable			U	-0.00019	mg/L						
Cadmium, total recoverable			U	0.000267	mg/L						
Chromium, total recoverable			U	0.00122	mg/L						
Lead, total recoverable			U	0.0107	mg/L						
Nickel, total recoverable			U	-0.00241	mg/L						
Selenium, total recoverable			U	-0.00368	mg/L						
Silver, total recoverable			U	0.000561	mg/L						
Thallium, total recoverable			U	0.00693	mg/L						
Vanadium, total recoverable			U	0.000017	mg/L						
Zinc, total recoverable			U	0.00565	mg/L						

Notes:
The Qualifiers in this report are defined as follows:

QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  AGTOT    199    495          1180      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  ALTOT    762    4950    V    13800000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  ASTOT    258    495          1410000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  BATOT    92.0   495          143000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  BETOT    61.6   495          18600     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  BTOT     812    4950         277000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  CATOT    2380   9900         18100000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  CDTOT    75.5   495          6470      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  COTOT    110    495          2020000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  CRTOT    128    495          340000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  CUTOT    198    495          1250000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  MGTOT    364    1980         34500000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  MOTOT    168    990          420000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  NITOT    143    495          2920000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  PBTOT    196    495          678000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  SBTOT    161    990          1890      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  SETOT    288    495          51400     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  SNTOT    288    990     V    8860      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  SRTOT    51.6   495          74900     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  TITOT    66.5   495          141000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  TLTOT    398    990          2840      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  UTOT     1740   4950         599000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  VTOT     147    495          300000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1138 EPA6010B  50200  GE 32957001  ZNTOT    272    495          412000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1311 EPA6010B  50200  GE 32957001  FETOT    3960   24800        77300000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1311 EPA6010B  50200  GE 32957001  KTOT     22700  49500        24900000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1311 EPA6010B  50200  GE 32957001  NATOT    3020   49500   V    66500000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1700 EPA3050B   111700 1449 EPA6010B  50200  GE 32957001  MNTOT    1750   9900         7920000   UGKG          0.00   W 20.0  TRACE2   50462  RMJ 100               10 49.5  AB93796N
689-1-T   101200 0000 101900 102400 1800 N          103000 1745 EPA300.0  50188  GE 32957001  NO2      1.97   4.93         11.3      MGKG          0.00   W 10.0  IC1      50370  HSC 100  32957001.0   10 9.85  AB93796N
689-1-T   101200 0000 101900 102400 1800 N          103000 1745 EPA300.0  50188  GE 32957001  OPO4     3.94   9.85         37.1      MGKG          0.00   W 10.0  IC1      50370  HSC 100  32957001.0   10 9.85  AB93796N
689-1-T   101200 0000 101900 102400 1800 N          103000 2150 EPA300.0  50188  GE 32957001  NO3      197    493          38300     MGKG          0.00   W 1000  IC1      50370  HSC 100  32957001.0   10 9.85  AB93796N
689-1-T   101200 0000 101900 102400 1900 EPA7471A   102500 1148 EPA7471A  50190  GE 32957001  HGTOT    3.98   8.75         58.0      UGKG          0.00   W 1.00  MER179   50427  AW2 100  32957001.0   10 43.7  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  AC228    2.55   8.25         102       PCG   2.85    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  AC227    7.34   20.56        435       PCG   6.61    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  BA133    0.808  1.784        0.871     PCG   0.488   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CA249    0.782  1.898        5.07      PCG   0.558   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CA251    2.63   5.93    U    -0.145    PCG   1.65    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CE141    2.36   6.62         138       PCG   2.13    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CE144    4.29   9.37    U    2.20      PCG   2.54    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CO57     0.500  1.484        6.67      PCG   0.492   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CO58     0.838  2.54    U    0.440     PCG   0.852   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CO60     0.721  1.791   U    -0.685    PCG   0.535   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CS134    0.569  1.647        0.947     PCG   0.539   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CS135    2.83   12.61        605       PCG   4.89    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  CS137    0.658  1.594        0.676     PCG   0.468   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  EU152    1.90   4.58         7.20      PCG   1.34    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  EU154    2.10   5.2     U    1.77      PCG   1.55    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  K40      7.47   23.65        35.0      PCG   8.09    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  MN54     0.697  1.753        1.55      PCG   0.528   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  NA22     0.740  1.86    U    0.639     PCG   0.560   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  NB94     0.713  1.975        6.70      PCG   0.631   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  NP239    3.54   8.36         6.75      PCG   2.41    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  PB212    1.07   3.21         107       PCG   1.07    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  PM144    0.611  1.625   U    0.607     PCG   0.507   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  PM146    0.885  2.463        4.45      PCG   0.799   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  RA226    1.17   7.57         995       PCG   3.20    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  RA228    2.55   8.25         102       PCG   2.85    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  RU103    0.962  2.158   U    -0.412    PCG   0.598   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  RU106    5.67   12.73   U    3.48      PCG   3.53    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  SB124    0.837  2.355        1.33      PCG   0.759   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  SB125    2.26   5.88         26.4      PCG   1.81    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  SN113    0.976  2.332   U    -0.391    PCG   0.678   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  SN126    1.42   3.72         104       PCG   1.15    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  Y88      0.751  2.445        4.72      PCG   0.847   0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  ZN65     2.08   4.6          22.1      PCG   1.26    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110300 1812 N          111300 0843 EPIA-013B 50652  GP 32957001  ZR95     1.56   3.78         2.37      PCG   1.11    0.00   D 1     GAMMA13  52273  SRB 100  32957001.0   10 1.00  AB93796N
689-1-T   101200 0000 101900 110800 1314 N          110800 1904 EPA300.0  52579  GE 32957001  OXALATE  1.13   6.00    U    6.00      MGKG          0.00   W 1.00  IC1      52629  RWS 100  32957001.0   10 10.0  AB93796N
689-1-T   101200 0000 101900 110800 1314 N          110900 1650 EPA300.0  52578  GE 32957001  SO4      790    2000         74000     MGKG          0.00   W 1000  IC1      52615  RWS 100  32957001.0   10 10.0  AB93796N
689-1-T   101200 0000 101900 110800 1314 N          111000 0938 EPA300.0  52578  GE 32957001  BR       4.00   12.5    U    12.5      MGKG          0.00   W 25.0  IC1      52615  RWS 100  32957001.0   10 10.0  AB93796N
689-1-T   101200 0000 101900 110800 1314 N          111000 0938 EPA300.0  52578  GE 32957001  CL       6.50   25.0         308       MGKG          0.00   W 25.0  IC1      52615  RWS 100  32957001.0   10 10.0  AB93796N
689-1-T   101200 0000 101900 110800 1314 N          111000 0938 EPA300.0  52578  GE 32957001  F        4.25   12.5         189       MGKG          0.00   W 25.0  IC1      52615  RWS 100  32957001.0   10 10.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  AGTOT    197    490          1130      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  ALTOT    755    4900    V    13200000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  ASTOT    256    490          1360000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  BATOT    91.1   490          135000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  BETOT    61.0   490          17600     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  BTOT     804    4900         263000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  CATOT    2350   9800         17500000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  CDTOT    74.8   490          6030      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  COTOT    109    490          1840000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  CRTOT    126    490          323000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  CUTOT    196    490          1160000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  FETOT    784    4900    V    48200000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  MGTOT    361    1960         32700000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  MOTOT    167    980          388000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  NITOT    141    490          2680000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  PBTOT    194    490          647000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  SBTOT    160    980          1570      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  SETOT    285    490          47000     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  SNTOT    283    980     V    8410      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  SRTOT    51.1   490          70400     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  TITOT    65.9   490          134000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  TLTOT    392    980          3100      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  UTOT     1730   4900         560000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  VTOT     145    490          288000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1200 EPA6010B  50200  GE 32957002  ZNTOT    270    490          393000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
689-1-B   101200 0000 101900 102400 1700 EPA3050B   111700 1333 EPA6010B  50200  GE 32957002  KTOT     22500  49000        21500000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100               10 49.0  AB93796N
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689-1-B  101200 0000 101900 102400 1700 EPA3050B  111700 1333 EPA6010B  50200  GE 32957002  NATOT    3000   49000     V  53500000 UGKG          0.00  W 10.0  TRACE2    50462  RMJ 100               10 49.0  AB93796N
689-1-B  101200 0000 101900 102400 1700 EPA3050B  111700 1511 EPA6010B  50200  GE 32957002  MNTOT    1740   9800         7510000  UGKG          0.00  W 20.0  TRACE2    50462  RMJ 100               10 49.0  AB93796N
689-1-B  101200 0000 101900 102400 1800 N         103000 1828 EPA300.0  50188  GE 32957002  NO2      1.97   4.93         13.7     MGKG          0.00  W 10.0  IC1       50370  HSC 100  32957002.0   10 9.85  AB93796N
689-1-B  101200 0000 101900 102400 1800 N         103000 1828 EPA300.0  50188  GE 32957002  OPO4     3.94   9.85         104      MGKG          0.00  W 10.0  IC1       50370  HSC 100  32957002.0   10 9.85  AB93796N
689-1-B  101200 0000 101900 102400 1800 N         103000 2233 EPA300.0  50188  GE 32957002  NO3      197    493          38600    MGKG          0.00  W 1000  IC1       50370  HSC 100  32957002.0   10 9.85  AB93796N
689-1-B  101200 0000 101900 102400 1900 EPA7471A  102500 1153 EPA7471A  50190  GE 32957002  HGTOT    4.28   9.40         51.8     UGKG          0.00  W 1.00  MER179    50427  AW2 100  32957002.0   10 47.0  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  AC228    1.67   6.09         95.4     PCG  2.21     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  AC227    6.13   17.71        425      PCG  5.79     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  BA133    0.618  1.428        0.750    PCG  0.405    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CA249    0.561  1.515        4.59     PCG  0.477    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CA251    2.24   5.12   U     -1.15    PCG  1.44     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CE141    1.97   5.79         125      PCG  1.91     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CE144    3.78   8.72   U     3.41     PCG  2.47     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CO57     0.464  1.556        5.63     PCG  0.546    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CO58     0.549  1.691  U     -0.0645  PCG  0.571    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CO60     0.497  1.229  U     -0.373   PCG  0.366    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CS134    0.487  1.109        5.78     PCG  0.311    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CS135    2.34   10.5         585      PCG  4.08     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  CS137    0.454  1.092        1.22     PCG  0.319    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  EU152    1.49   3.53         5.15     PCG  1.02     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  EU154    1.47   3.93         2.97     PCG  1.23     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  K40      5.08   16.06        35.0     PCG  5.49     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  MN54     0.462  1.21         1.71     PCG  0.374    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  NA22     0.516  1.406  J I   1.07     PCG  0.445    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  NB94     0.481  1.439        5.87     PCG  0.479    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  NP239    3.32   7.62         5.23     PCG  2.15     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  PB212    0.895  2.869        104      PCG  0.987    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  PM144    0.405  1.169        0.627    PCG  0.382    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  PM146    0.628  1.892        4.13     PCG  0.632    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  RA226    0.821  5.781        877      PCG  2.48     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  RA228    1.67   6.09         95.4     PCG  2.21     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  RU103    0.667  1.507  U     -0.631   PCG  0.420    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  RU106    3.92   9.26   U     1.27     PCG  2.67     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  SB124    0.558  1.684  U     -0.0589  PCG  0.563    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  SB125    1.60   4.12         22.6     PCG  1.26     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  SN113    0.703  1.695  U     -0.49    PCG  0.496    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  SN126    1.87   4.71         65.5     PCG  1.42     0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  Y88      0.429  1.415        4.25     PCG  0.493    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  ZN65     1.61   3.422        31.8     PCG  0.906    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110300 1812 N         111300 0843 EPIA-013B 50652  GP 32957002  ZR95     1.01   2.226        1.82     PCG  0.608    0.00  D 1     GAMMA18   52273  SRB 100  32957002.0   10 1.00  AB93796N
689-1-B  101200 0000 101900 110800 1314 N         110800 2005 EPA300.0  52579  GE 32957002  OXALATE  1.13   6.00   U     6.00     MGKG          0.00  W 1.00  IC1       52629  RWS 100  32957002.0   10 10.0  AB93796N
689-1-B  101200 0000 101900 110800 1314 N         110900 1733 EPA300.0  52578  GE 32957002  SO4      790    2000         71700    MGKG          0.00  W 1000  IC1       52615  RWS 100  32957002.0   10 10.0  AB93796N
689-1-B  101200 0000 101900 110800 1314 N         111000 1021 EPA300.0  52578  GE 32957002  BR       4.00   12.5   U     12.5     MGKG          0.00  W 25.0  IC1       52615  RWS 100  32957002.0   10 10.0  AB93796N
689-1-B  101200 0000 101900 110800 1314 N         111000 1021 EPA300.0  52578  GE 32957002  CL       6.50   25.0         172      MGKG          0.00  W 25.0  IC1       52615  RWS 100  32957002.0   10 10.0  AB93796N
689-1-B  101200 0000 101900 110800 1314 N         111000 1021 EPA300.0  52578  GE 32957002  F        4.25   12.5         94.0     MGKG          0.00  W 25.0  IC1       52615  RWS 100  32957002.0   10 10.0  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  AGTOT    193    481          1070     UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  ALTOT    740    4810      V  13100000 UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  ASTOT    251    481          1320000  UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  BATOT    89.3   481          135000   UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  BETOT    59.8   481          17600    UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  BTOT     788    4810         257000   UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  CATOT    2310   9620         17100000 UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  CDTOT    73.4   481          6120     UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  COTOT    107    481          1890000  UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  CRTOT    124    481          325000   UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  CUTOT    192    481          1160000  UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  FETOT    769    4810      V  48100000 UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  MGTOT    354    1920         32700000 UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  MOTOT    163    962          396000   UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  NITOT    138    481          2770000  UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  PBTOT    190    481          633000   UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  SBTOT    157    962          1450     UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  SETOT    280    481          47500    UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  SNTOT    278    962       V  8650     UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  SRTOT    50.1   481          70300    UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  TITOT    64.6   481          134000   UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  TLTOT    385    962          2860     UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  UTOT     1690   4810         560000   UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  VTOT     142    481          283000   UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1217 EPA6010B  50200  GE 32957003  ZNTOT    264    481          386000   UGKG          0.00  W 2.00  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1339 EPA6010B  50200  GE 32957003  KTOT     22100  48100        22000000 UGKG          0.00  W 10.0  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1339 EPA6010B  50200  GE 32957003  NATOT    2940   48100     V  57500000 UGKG          0.00  W 10.0  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1700 EPA3050B  111700 1517 EPA6010B  50200  GE 32957003  MNTOT    1700   9620         7710000  UGKG          0.00  W 20.0  TRACE2    50462  RMJ 100               10 48.1  AB93796N
689-2-T  101200 0000 101900 102400 1800 N         103000 1843 EPA300.0  50188  GE 32957003  NO2      1.98   4.95         15.0     MGKG          0.00  W 10.0  IC1       50370  HSC 100  32957003.0   10 9.90  AB93796N
689-2-T  101200 0000 101900 102400 1800 N         103000 1843 EPA300.0  50188  GE 32957003  OPO4     3.96   9.90         98.1     MGKG          0.00  W 10.0  IC1       50370  HSC 100  32957003.0   10 9.90  AB93796N
689-2-T  101200 0000 101900 102400 1800 N         103000 2247 EPA300.0  50188  GE 32957003  NO3      198    495          40300    MGKG          0.00  W 1000  IC1       50370  HSC 100  32957003.0   10 9.90  AB93796N
689-2-T  101200 0000 101900 102400 1900 EPA7471A  102500 1155 EPA7471A  50190  GE 32957003  HGTOT    4.11   9.04         50.5     UGKG          0.00  W 1.00  MER179    50427  AW2 100  32957003.0   10 45.2  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  AC228    1.61   5.75         96.1     PCG  2.07     0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  AC227    5.81   16.85        445      PCG  5.52     0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  BA133    0.555  1.293        0.937    PCG  0.369    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CA249    0.519  1.401        3.97     PCG  0.441    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CA251    2.11   4.79   U     -0.0134  PCG  1.34     0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CE141    2.04   5.4          131      PCG  1.68     0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CE144    3.53   8.51   U     -2.04    PCG  2.49     0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CO57     0.420  1.476        3.34     PCG  0.528    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CO58     0.518  1.258  U     -0.585   PCG  0.370    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CO60     0.477  1.535  U     0.269    PCG  0.529    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CS134    0.393  .953         0.777    PCG  0.280    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CS135    2.24   9.16         563      PCG  3.46     0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  CS137    0.404  .992   U     0.165    PCG  0.294    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  EU152    1.39   3.53         7.26     PCG  1.07     0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  EU154    1.38   3.34         3.07     PCG  0.980    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  K40      4.78   16.62        38.9     PCG  5.92     0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  MN54     0.548  1.258        1.56     PCG  0.355    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  NA22     0.465  1.173  J I   1.11     PCG  0.354    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  NB94     0.448  1.264        5.65     PCG  0.408    0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
689-2-T  101200 0000 101900 110300 1813 N         111300 0844 EPIA-013B 50652  GP 32957003  NP239    3.01   7.49   U     2.37     PCG  2.24     0.00  D 1     HP        52273  SRB 100  32957003.0   10 1.00  AB93796N
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689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	PB212	0.652	2.624			104	PCG	0.886	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	PM144	0.380	.944			0.417	PCG	0.252	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	PM146	0.587	1.679			4.21	PCG	0.646	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	RA226	0.766	6.326			872	PCG	2.28	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	RA228	1.61	5.75			96.1	PCG	2.07	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	RU103	0.626	1.412	U		-0.204	PCG	0.393	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	RU106	3.53	6.05	U		-2.26	PCG	2.26	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	SB124	0.530	1.218	U		-1.41	PCG	0.344	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	SB125	1.54	4.24			23.5	PCG	1.35	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	SN113	0.657	1.583	U		-0.147	PCG	0.463	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	SN126	1.59	3.67			88.5	PCG	1.04	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	Y88	0.535	1.113			3.59	PCG	0.289	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	ZN65	1.11	2.626			4.89	PCG	0.758	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957003	ZR95	0.971	2.375			2.34	PCG	0.702	0.00	D 1	HP	52273	SRB	100	32957003.0	10 1.00	AB93796N
689-2-T	101200 0000 101900 110800 1314 N	110800 2025 EPA300.0	52579	GE 32957003	OXALATE	1.13	6.00	U		6.00	MGKG		0.00	W 1.00	IC1	52629	RWS	100	32957003.0	10 10.0	AB93796N
689-2-T	101200 0000 101900 110800 1314 N	110900 1748 EPA300.0	52578	GE 32957003	SO4	790	2000			71000	MGKG		0.00	W 1000	IC1	52615	RWS	100	32957003.0	10 10.0	AB93796N
689-2-T	101200 0000 101900 110800 1314 N	111000 1036 EPA300.0	52578	GE 32957003	BR	4.00	12.5	U		12.5	MGKG		0.00	W 25.0	IC1	52615	RWS	100	32957003.0	10 10.0	AB93796N
689-2-T	101200 0000 101900 110800 1314 N	111000 1036 EPA300.0	52578	GE 32957003	CL	6.50	25.0			304	MGKG		0.00	W 25.0	IC1	52615	RWS	100	32957003.0	10 10.0	AB93796N
689-2-T	101200 0000 101900 110800 1314 N	111000 1036 EPA300.0	52578	GE 32957003	F	4.25	12.5			161	MGKG		0.00	W 25.0	IC1	52615	RWS	100	32957003.0	10 10.0	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	AGTOT	186	463			1100	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	ALTOT	713	4630		V	13000000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	ASTOT	242	463			1340000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	BATOT	86.0	463			131000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	BETOT	57.6	463			17300	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	BTOT	759	4630			262000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	CATOT	2220	9260			17300000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	CDTOT	70.6	463			5920	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	COTOT	103	463			1810000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	CRTOT	119	463			317000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	CUTOT	185	463			1140000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	MGTOT	341	1850			32100000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	MOTOT	157	926			387000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	NITOT	133	463			2610000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	PBTOT	183	463			637000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	SBTOT	151	926			1520	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	SETOT	269	463			46000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	SNTOT	268	926		V	8100	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	SRTOT	48.2	463			69500	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	TITOT	62.2	463			133000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	TLTOT	370	926			2780	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	UTOT	1630	4630			542000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	VTOT	137	463			286000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1222 EPA6010B	50200	GE 32957004	ZNTOT	255	463			385000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1355 EPA6010B	50200	GE 32957004	FETOT	3700	23100			68300000	UGKG		0.00	W 10.0	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1355 EPA6010B	50200	GE 32957004	KTOT	21300	46300			22700000	UGKG		0.00	W 10.0	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1355 EPA6010B	50200	GE 32957004	NATOT	2830	46300		V	55900000	UGKG		0.00	W 10.0	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1700 EPA3050B	111700 1533 EPA6010B	50200	GE 32957004	MNTOT	1640	9260			7490000	UGKG		0.00	W 20.0	TRACE2	50462	RMJ	100		10 46.3	AB93796N
689-2-B	101200 0000 101900 102400 1800 N	103000 1857 EPA300.0	50188	GE 32957004	NO2	1.99	4.96			10.3	MGKG		0.00	W 10.0	IC1	50370	HSC	100	32957004.0	10 9.93	AB93796N
689-2-B	101200 0000 101900 102400 1800 N	103000 1857 EPA300.0	50188	GE 32957004	OPO4	3.97	9.93	U		9.93	MGKG		0.00	W 10.0	IC1	50370	HSC	100	32957004.0	10 9.93	AB93796N
689-2-B	101200 0000 101900 102400 1800 N	103000 2302 EPA300.0	50188	GE 32957004	NO3	199	496			38800	MGKG		0.00	W 1000	IC1	50370	HSC	100	32957004.0	10 9.93	AB93796N
689-2-B	101200 0000 101900 102400 1900 EPA7471A	102500 1157 EPA7471A	50190	GE 32957004	HGTOT	4.38	9.63			46.2	UGKG		0.00	W 1.00	MER179	50427	AW2	100	32957004.0	10 46.2	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	AC228	2.34	7.9			96.0	PCG	2.78	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	AC227	7.52	21.2			427	PCG	6.64	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	BA133	0.775	2.017			1.26	PCG	0.621	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CA249	0.752	2.246			7.24	PCG	0.747	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CA251	2.65	5.95	U		-0.137	PCG	1.65	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CE141	2.40	6.38			126	PCG	1.99	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CE144	4.38	9.62	U		-4.56	PCG	2.72	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CO57	0.524	1.976			4.05	PCG	0.726	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CO58	0.761	1.831	U		-0.19	PCG	0.535	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CO60	0.679	1.541	U		-0.195	PCG	0.431	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CS134	0.550	1.292			0.712	PCG	0.371	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CS135	2.94	9.24			342	PCG	3.15	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	CS137	0.594	1.406	U		0.355	PCG	0.406	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	EU152	1.87	4.97			5.24	PCG	1.55	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	EU154	1.88	4.14	U		1.57	PCG	1.13	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	K40	6.83	22.11			38.6	PCG	7.64	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	MN54	0.638	2.424			1.09	PCG	0.893	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	NA22	0.667	1.483	U		0.568	PCG	0.408	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	NB94	0.534	1.764			6.29	PCG	0.615	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	NP239	3.78	9.58	U		3.46	PCG	2.90	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	PB212	1.10	3.26			102	PCG	1.08	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	PM144	0.550	1.202	U		0.329	PCG	0.326	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	PM146	0.854	2.684			5.32	PCG	0.915	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	RA226	1.10	7.62			929	PCG	3.26	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	RA228	2.34	7.9			96.0	PCG	2.78	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	RU103	0.917	2.103	U		-0.00908	PCG	0.593	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	RU106	5.28	11.68	U		0.490	PCG	3.20	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	SB124	0.752	1.676	U		-0.934	PCG	0.462	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	SB125	2.21	5.65			24.5	PCG	1.82	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	SN113	0.941	2.309	U		-0.955	PCG	0.684	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	SN126	2.04	5.22			71.0	PCG	1.59	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	Y88	0.672	1.534			1.41	PCG	0.431	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	ZN65	1.38	3.36	U		-0.0651	PCG	0.990	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110300 1813 N	111300 0844 EPIA-013B	50652	GP 32957004	ZR95	1.42	3.26	U		1.30	PCG	0.920	0.00	D 1	GAMMA1	52273	SRB	100	32957004.0	10 1.00	AB93796N
689-2-B	101200 0000 101900 110800 1314 N	110800 2046 EPA300.0	52579	GE 32957004	OXALATE	1.13	6.00	U		6.00	MGKG		0.00	W 1.00	IC1	52629	RWS	100	32957004.0	10 10.0	AB93796N
689-2-B	101200 0000 101900 110800 1314 N	110900 1802 EPA300.0	52578	GE 32957004	SO4	790	2000			71900	MGKG		0.00	W 1000	IC1	52615	RWS	100	32957004.0	10 10.0	AB93796N
689-2-B	101200 0000 101900 110800 1314 N	111000 1050 EPA300.0	52578	GE 32957004	BR	4.00	12.5	U		12.5	MGKG		0.00	W 25.0	IC1	52615	RWS	100	32957004.0	10 10.0	AB93796N
689-2-B	101200 0000 101900 110800 1314 N	111000 1050 EPA300.0	52578	GE 32957004	CL	6.50	25.0			298	MGKG		0.00	W 25.0	IC1	52615	RWS	100	32957004.0	10 10.0	AB93796N
689-2-B	101200 0000 101900 110800 1314 N	111000 1050 EPA300.0	52578	GE 32957004	F	4.25	12.5			163	MGKG		0.00	W 25.0	IC1	52615	RWS	100	32957004.0	10 10.0	AB93796N
696-1-T	101300 0000 101900 102400 1700 EPA3050B	111700 1228 EPA6010B	50200	GE 32957005	AGTOT	197	490			1430	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 49.0	AB93796N
696-1-T	101300 0000 101900 102400 1700 EPA3050B	111700 1228 EPA6010B	50200	GE 32957005	ALTOT	755	4900		V	13500000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 49.0	AB93796N
696-1-T	101300 0000 101900 102400 1700 EPA3050B	111700 1228 EPA6010B	50200	GE 32957005	ASTOT	256	490			1050000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 49.0	AB93796N
696-1-T	101300 0000 101900 102400 1700 EPA3050B	111700 1228 EPA6010B	50200	GE 32957005	BATOT	91.1	490			92200	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 49.0	AB93796N
696-1-T	101300 0000 101900 102400 1700 EPA3050B	111700 1228 EPA6010B	50200	GE 32957005	BETOT	61.0	490			70500	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 49.0	AB93796N
696-1-T	101300 0000 101900 102400 1700 EPA3050B	111700 1228 EPA6010B	50200	GE 32957005	BTOT	804	4900			283000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 49.0	AB93796N
696-1-T	101300 0000 101900 102400 1700 EPA3050B	111700 1228 EPA6010B	50200	GE 32957005	CATOT	2350	9800			15400000	UGKG		0.00	W 2.00	TRACE2	50462	RMJ	100		10 49.0	AB93796N

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696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   CDTOT    74.8   490         33600     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   COTOT    109    490         781000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   CRTOT    126    490         329000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   CUTOT    198    490         1020000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   FETOT    784    4900     V  43900000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   MGTOT    381    1960        34900000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   MOTOT    167    980         816000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   NITOT    141    490         975000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   PBTOT    194    490         381000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   SBTOT    160    980         2160      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   SETOT    285    490         21200     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   SNTOT    283    980      V  8360      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   SRTOT    51.1   490         85500     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   TITOT    65.9   490         216000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   TLTOT    392    980         3480      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   UTOT     1730   4900        440000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   VTOT     145    490         917000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1228 EPA6010B   50200  GE 32957005   ZNTOT    270    490         454000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1401 EPA6010B   50200  GE 32957005   KTOT     22500  49000       20900000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1401 EPA6010B   50200  GE 32957005   NATOT    3000   49000    V  52500000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1700 EPA3050B   111700 1539 EPA6010B   50200  GE 32957005   MNTOT    1740   9800        7820000   UGKG          0.00   W 20.0  TRACE2   50462  RMJ 100               10 49.0  AB93796N
696-1-T   101300 0000 101900 102400 1800 N          103000 1912 EPA300.0   50188  GE 32957005   NO2      1.98   4.94   U    4.94      MGKG          0.00   W 10.0  IC1      50370  HSC 100  32957005.0   10 9.88  AB93796N
696-1-T   101300 0000 101900 102400 1800 N          103000 1912 EPA300.0   50188  GE 32957005   OPO4     3.95   9.88        124       MGKG          0.00   W 10.0  IC1      50370  HSC 100  32957005.0   10 9.88  AB93796N
696-1-T   101300 0000 101900 102400 1800 N          103000 2316 EPA300.0   50188  GE 32957005   NO3      198    494         37500     MGKG          0.00   W 1000  IC1      50370  HSC 100  32957005.0   10 9.88  AB93796N
696-1-T   101300 0000 101900 102400 1900 EPA7471A   102500 1158 EPA7471A   50190  GE 32957005   HGTOT    3.92   8.62        20.7      UGKG          0.00   W 1.00  MER179   50427  AW2 100  32957005.0   10 43.1  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   AC228    2.07   8.21        132       PCG  3.07     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   AC227    7.19   20.09       333       PCG  6.45     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   BA133    0.728  1.762  U    0.576     PCG  0.517    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CA249    0.703  1.727       4.34      PCG  0.512    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CA251    2.64   5.72   U    -1.19     PCG  1.59     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CE141    1.82   4.3         3.93      PCG  1.24     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CE144    4.27   9.55   U    -0.338    PCG  2.64     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CO57     0.528  1.454       4.77      PCG  0.463    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CO58     0.688  1.544  U    -0.24     PCG  0.428    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CO60     0.606  1.464  U    -0.503    PCG  0.429    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CS134    0.484  1.382       1.78      PCG  0.449    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CS135    2.76   8.99        280       PCG  3.12     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   CS137    0.533  1.327  U    0.487     PCG  0.397    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   EU152    1.75   4.31   U    -3.06     PCG  1.28     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   EU154    1.79   4.35        2.03      PCG  1.28     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   K40      6.23   23.29       39.5      PCG  8.53     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   MN54     0.577  1.501       1.86      PCG  0.462    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   NA22     0.592  1.518  J I  0.732     PCG  0.463    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   NB94     0.610  1.658       4.82      PCG  0.524    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   NP239    3.72   8.82        3.85      PCG  2.55     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   PB212    1.05   3.36        136       PCG  1.15     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   PM144    0.518  1.15   U    0.233     PCG  0.316    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   PM146    0.783  2.019       3.49      PCG  0.618    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   RA226    0.999  6.459       725       PCG  2.73     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   RA228    2.07   8.21        132       PCG  3.07     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   RU103    0.829  1.833  U    -0.122    PCG  0.502    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   RU106    4.78   10.62  U    -0.293    PCG  2.92     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   SB124    0.720  1.97        2.48      PCG  0.625    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   SB125    1.87   5.19        19.1      PCG  1.66     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   SN113    0.869  2.123  U    0.181     PCG  0.627    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   SN126    2.02   4.94        15.9      PCG  1.46     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   Y88      0.551  1.679       3.70      PCG  0.564    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   ZN65     1.59   3.59        10.3      PCG  1.00     0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957005   ZR95     1.27   3.024  U    1.06      PCG  0.877    0.00   D 1     GAMMA16  52273  SRB 100  32957005.0   10 1.00  AB93796N
696-1-T   101300 0000 101900 110800 1314 N          110800 2106 EPA300.0   52579  GE 32957005   OXALATE  1.13   6.00   U    6.00      MGKG          0.00   W 1.00  IC1      52629  RWS 100  32957005.0   10 10.0  AB93796N
696-1-T   101300 0000 101900 110800 1314 N          110900 1817 EPA300.0   52578  GE 32957005   SO4      790    2000        63300     MGKG          0.00   W 1000  IC1      52615  RWS 100  32957005.0   10 10.0  AB93796N
696-1-T   101300 0000 101900 110800 1314 N          111000 1104 EPA300.0   52578  GE 32957005   BR       4.00   12.5   U    12.5      MGKG          0.00   W 25.0  IC1      52615  RWS 100  32957005.0   10 10.0  AB93796N
696-1-T   101300 0000 101900 110800 1314 N          111000 1104 EPA300.0   52578  GE 32957005   CL       6.50   25.0        330       MGKG          0.00   W 25.0  IC1      52615  RWS 100  32957005.0   10 10.0  AB93796N
696-1-T   101300 0000 101900 110800 1314 N          111000 1104 EPA300.0   52578  GE 32957005   F        4.25   12.5        174       MGKG          0.00   W 25.0  IC1      52615  RWS 100  32957005.0   10 10.0  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   AGTOT    191    476         1280      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   ALTOT    733    4760     V  13500000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   ASTOT    249    476         990000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   BATOT    88.5   476         88500     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   BETOT    59.2   476         60000     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   BTOT     781    4760        277000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   CATOT    2290   9520        14600000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   CDTOT    72.7   476         29100     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   COTOT    106    476         782000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   CRTOT    123    476         321000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   CUTOT    190    476         1000000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   FETOT    762    4760     V  43600000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   MGTOT    350    1900        33800000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   MOTOT    162    952         745000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   NITOT    137    476         951000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   PBTOT    189    476         361000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   SBTOT    155    952         1860      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   SETOT    277    476         20100     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   SNTOT    275    952      V  8210      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   SRTOT    49.6   476         83600     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   TITOT    64.0   476         216000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   TLTOT    381    952         3020      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   UTOT     1680   4760        435000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   VTOT     141    476         957000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1233 EPA6010B   50200  GE 32957006   ZNTOT    262    476         454000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1406 EPA6010B   50200  GE 32957006   KTOT     21900  47600       22600000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1406 EPA6010B   50200  GE 32957006   NATOT    2910   47600    V  59300000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1700 EPA3050B   111700 1544 EPA6010B   50200  GE 32957006   MNTOT    1690   9520        7870000   UGKG          0.00   W 20.0  TRACE2   50462  RMJ 100               10 47.6  AB93796N
696-1-B   101300 0000 101900 102400 1800 N          103000 1926 EPA300.0   50188  GE 32957006   NO2      2.00   5.00   U    5.00      MGKG          0.00   W 10.0  IC1      50370  HSC 100  32957006.0   10 10.0  AB93796N
696-1-B   101300 0000 101900 102400 1800 N          103000 1926 EPA300.0   50188  GE 32957006   OPO4     4.00   10.0        117       MGKG          0.00   W 10.0  IC1      50370  HSC 100  32957006.0   10 10.0  AB93796N
696-1-B   101300 0000 101900 102400 1800 N          103000 2331 EPA300.0   50188  GE 32957006   NO3      200    500         37700     MGKG          0.00   W 1000  IC1      50370  HSC 100  32957006.0   10 10.0  AB93796N
696-1-B   101300 0000 101900 102400 1900 EPA7471A   102500 1200 EPA7471A   50190  GE 32957006   HGTOT    4.01   8.81        17.2      UGKG          0.00   W 1.00  MER179   50427  AW2 100  32957006.0   10 44.1  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006   AC228    2.59   9.73        132       PCG  3.57     0.00   D 1     GAMMA17  52273  SRB 100  32957006.0   10 1.00  AB93796N
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696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  AC227     7.71    21.57          353       PCG   6.93    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  BA133     0.846   1.926          0.920     PCG   0.540   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CA249     0.826   1.934          3.50      PCG   0.554   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CA251     2.79    6.67     U     0.795     PCG   1.94    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CE141     2.15    5.15           22.0      PCG   1.50    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CE144     4.60    10.66    U     -1.38     PCG   3.03    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CO57      0.550   1.494          5.13      PCG   0.472   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CO58      0.862   1.962    U     -4.33     PCG   0.560   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CO60      0.745   1.673    U     -0.247    PCG   0.464   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CS134     0.718   1.656          5.21      PCG   0.469   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CS135     2.97    12.83          498       PCG   4.93    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  CS137     0.722   1.74           1.41      PCG   0.509   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  EU152     1.94    4.78     U     -7.02     PCG   1.42    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  EU154     2.11    5.29     U     2.10      PCG   1.59    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  K40       7.46    23.06          35.1      PCG   7.80    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  MN54      0.723   2.273          2.49      PCG   0.775   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  NA22      0.726   1.876    J I   0.756     PCG   0.575   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  NB94      0.750   2.072          5.29      PCG   0.661   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  NP239     3.81    9.07     U     2.02      PCG   2.63    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  PB212     1.12    3.62           133       PCG   1.25    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  PM144     0.645   1.467    U     0.0296    PCG   0.411   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  PM146     0.919   2.643          3.88      PCG   0.862   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  RA226     1.18    7.88           773       PCG   3.35    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  RA228     2.59    9.73           132       PCG   3.57    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  RU103     0.993   2.245    U     -0.0464   PCG   0.626   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  RU106     5.89    13.37    U     -0.172    PCG   3.74    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  SB124     0.841   2.061    U     0.0888    PCG   0.610   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  SB125     2.24    5.84           21.2      PCG   1.80    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  SN113     1.02    2.476    U     0.0212    PCG   0.728   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  SN126     1.81    22.81          73.6      PCG   10.5    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  Y88       0.650   2.442          3.77      PCG   0.896   0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  ZN65      1.86    4.22           10.1      PCG   1.18    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110300 1813 N          111300 0845 EPIA-013B  50652  GP 32957006  ZR95      1.59    3.77     U     0.875     PCG   1.09    0.00   D 1     GAMMA17  52273  SRB 100  32957006.0  10 1.00  AB93796N
696-1-B   101300 0000 101900 110800 1314 N          110800 2126 EPA300.0   52579  GE 32957006  OXALATE   1.13    6.00     U     6.00      MGKG          0.00   W 1.00  IC1      52629  RWS 100  32957006.0  10 10.0  AB93796N
696-1-B   101300 0000 101900 110800 1314 N          110900 1831 EPA300.0   52578  GE 32957006  SO4       790     2000           71200     MGKG          0.00   W 1000  IC1      52615  RWS 100  32957006.0  10 10.0  AB93796N
696-1-B   101300 0000 101900 110800 1314 N          111000 1202 EPA300.0   52578  GE 32957006  BR        4.00    12.5     U     12.5      MGKG          0.00   W 25.0  IC1      52615  RWS 100  32957006.0  10 10.0  AB93796N
696-1-B   101300 0000 101900 110800 1314 N          111000 1202 EPA300.0   52578  GE 32957006  CL        6.50    25.0           332       MGKG          0.00   W 25.0  IC1      52615  RWS 100  32957006.0  10 10.0  AB93796N
696-1-B   101300 0000 101900 110800 1314 N          111000 1202 EPA300.0   52578  GE 32957006  F         4.25    12.5           196       MGKG          0.00   W 25.0  IC1      52615  RWS 100  32957006.0  10 10.0  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  AGTOT     186     463            1320      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  ALTOT     713     4630       V   13200000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  ASTOT     242     463            1020000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  BATOT     86.0    463            88700     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  BETOT     57.6    463            66300     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  BTOT      759     4630           279000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  CATOT     2220    9260           15000000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  CDTOT     70.6    463            30500     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  COTOT     103     463            818000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  CRTOT     119     463            316000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  CUTOT     185     463            951000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  FETOT     741     4630       V   42700000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  MGTOT     341     1850           34100000  UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  MOTOT     157     926            773000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  NITOT     133     463            1030000   UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  PBTOT     163     463            376000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  SBTOT     151     926            2240      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  SETOT     269     463            21000     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  SNTOT     268     926        V   7990      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  SRTOT     48.2    463            81400     UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  TITOT     62.2    463            196000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  TLTOT     370     926            2740      UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  UTOT      1630    4630           419000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  VTOT      137     463            706000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1239 EPA6010B   50200  GE 32957007  ZNTOT     255     463            411000    UGKG          0.00   W 2.00  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1412 EPA6010B   50200  GE 32957007  KTOT      21300   46300          27700000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1412 EPA6010B   50200  GE 32957007  NATOT     2830    46300      V   70100000  UGKG          0.00   W 10.0  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1700 EPA3050B   111700 1550 EPA6010B   50200  GE 32957007  MNTOT     1640    9260           7660000   UGKG          0.00   W 20.0  TRACE2   50462  RMJ 100              10 46.3  AB93796N
696-2-T   101300 0000 101900 102400 1800 N          103000 2009 EPA300.0   50188  GE 32957007  NO2       1.99    4.98           10.4      MGKG          0.00   W 10.0  IC1      50370  HSC 100  32957007.0  10 9.95  AB93796N
696-2-T   101300 0000 101900 102400 1800 N          103000 2009 EPA300.0   50188  GE 32957007  OPO4      3.98    9.95     U     9.95      MGKG          0.00   W 10.0  IC1      50370  HSC 100  32957007.0  10 9.95  AB93796N
696-2-T   101300 0000 101900 102400 1800 N          103000 2345 EPA300.0   50188  GE 32957007  NO3       199     498            37500     MGKG          0.00   W 1000  IC1      50370  HSC 100  32957007.0  10 9.96  AB93796N
696-2-T   101300 0000 101900 102400 1900 EPA7471A   102500 1202 EPA7471A   50190  GE 32957007  HGTOT     4.21    9.24           18.6      UGKG          0.00   W 1.00  MER179   50427  AW2 100  32957007.0  10 46.2  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  AC228     3.63    12.77          126       PCG   4.57    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  AC227     11.9    34.3           350       PCG   11.2    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  BA133     1.46    3.368          15.3      PCG   0.954   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CA249     1.20    3.11           4.39      PCG   0.955   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CA251     4.07    9.17     U     -2.94     PCG   2.55    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CE141     2.80    10.16          81.9      PCG   3.68    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CE144     6.60    16.08    U     -3.61     PCG   4.74    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CO57      0.781   2.771          3.19      PCG   0.995   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CO58      1.17    2.828    U     -0.553    PCG   0.829   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CO60      0.932   2.09     U     -0.43     PCG   0.579   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CS134     1.08    2.532          6.23      PCG   0.726   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CS135     7.74    16.46          307       PCG   4.36    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  CS137     0.982   2.384          1.63      PCG   0.701   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  EU152     3.31    7.81           3.56      PCG   2.25    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  EU154     2.63    7.57           3.47      PCG   2.47    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  K40       9.48    34.28          40.7      PCG   12.4    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  MN54      1.07    2.088    U     0.347     PCG   0.509   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  NA22      0.921   2.707    J I   1.25      PCG   0.893   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  NB94      0.989   2.643          5.00      PCG   0.827   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  NP239     5.54    13.52    U     -5.99     PCG   3.99    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  PB212     1.74    5.4            140       PCG   1.83    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  PM144     0.895   2.033    U     -0.0857   PCG   0.569   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  PM146     1.33    3.57           4.47      PCG   1.12    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  RA226     1.84    10.54          789       PCG   4.35    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  RA228     3.63    12.77          126       PCG   4.57    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  RU103     1.46    3.302    U     0.0231    PCG   0.921   0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N          111300 0846 EPIA-013B  50652  GP 32957007  RU106     8.38    18.94    U     3.00      PCG   5.28    0.00   D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
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696-2-T   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  SB124     1.32   4.3    U     -1.38     PCG   1.49   0.00  D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  SB125     3.29   9.03         24.0      PCG   2.87   0.00  D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  SN113     1.54   3.78         1.96      PCG   1.11   0.00  D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  SN126     2.62   7.54         84.8      PCG   2.46   0.00  D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  Y88       1.10   2.488        3.09      PCG   0.694  0.00  D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  ZN65      2.49   5.73         10.6      PCG   1.62   0.00  D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957007  ZR95      2.29   5.09   U     1.20      PCG   1.40   0.00  D 1     WELL     52273  SRB 100  32957007.0  10 1.00  AB93796N
696-2-T   101300 0000 101900 110800 1314 N         110800 2227 EPA300.0   52579  GE 32957007  OXALATE   1.13   6.00   U     6.00      MGKG         0.00  W 1.00  IC1      52629  RWS 100  32957007.0  10 10.0  AB93796N
696-2-T   101300 0000 101900 110800 1314 N         110900 1845 EPA300.0   52578  GE 32957007  SO4       790    2000         62300     MGKG         0.00  W 1000  IC1      52615  RWS 100  32957007.0  10 10.0  AB93796N
696-2-T   101300 0000 101900 110800 1314 N         111000 1216 EPA300.0   52578  GE 32957007  BR        4.00   12.5   U     12.5      MGKG         0.00  W 25.0  IC1      52615  RWS 100  32957007.0  10 10.0  AB93796N
696-2-T   101300 0000 101900 110800 1314 N         111000 1216 EPA300.0   52578  GE 32957007  CL        6.50   25.0         306       MGKG         0.00  W 25.0  IC1      52615  RWS 100  32957007.0  10 10.0  AB93796N
696-2-T   101300 0000 101900 110800 1314 N         111000 1218 EPA300.0   52578  GE 32957007  F         4.25   12.5         183       MGKG         0.00  W 25.0  IC1      52615  RWS 100  32957007.0  10 10.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  AGTOT     197    490          1160      UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  ALTOT     755    4900     V   13800000  UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  ASTOT     256    490          1040000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  BATOT     91.1   490          89300     UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  BETOT     61.0   490          61500     UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  BTOT      804    4900         292000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  CATOT     2350   9800         15200000  UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  CDTOT     74.8   490          27500     UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  COTOT     109    490          908000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  CRTOT     126    490          323000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  CUTOT     196    490          953000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  FETOT     784    4900     V   45700000  UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  MGTOT     361    1960         35200000  UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  MOTOT     167    980          732000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  NITOT     141    490          1160000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  PBTOT     194    490          386000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  SBTOT     160    980          1890      UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  SETOT     285    490          22000     UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  SNTOT     283    980      V   8060      UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  SRTOT     51.1   490          83300     UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  TITOT     65.9   490          191000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  TLTOT     392    980          2310      UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  UTOT      1730   4900         431000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  VTOT      145    490          635000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1244 EPA6010B   50200  GE 32957008  ZNTOT     270    490          431000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1417 EPA6010B   50200  GE 32957008  KTOT      22500  49000        31800000  UGKG         0.00  W 10.0  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1417 EPA6010B   50200  GE 32957008  NATOT     3000   49000    V   77500000  UGKG         0.00  W 10.0  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1700 EPA3050B  111700 1555 EPA6010B   50200  GE 32957008  MNTOT     1740   9800         8070000   UGKG         0.00  W 20.0  TRACE2   50462  RMJ 100              10 49.0  AB93796N
696-2-B   101300 0000 101900 102400 1800 N         103000 2024 EPA300.0   50188  GE 32957008  NO2       2.00   5.00         10.3      MGKG         0.00  W 10.0  IC1      50370  HSC 100  32957008.0  10 10.0  AB93796N
696-2-B   101300 0000 101900 102400 1800 N         103000 2024 EPA300.0   50188  GE 32957008  OPO4      4.00   10.0   U     10.0      MGKG         0.00  W 10.0  IC1      50370  HSC 100  32957008.0  10 10.0  AB93796N
696-2-B   101300 0000 101900 102400 1800 N         103000 2359 EPA300.0   50188  GE 32957008  NO3       200    500          36700     MGKG         0.00  W 1000  IC1      50370  HSC 100  32957008.0  10 10.0  AB93796N
696-2-B   101300 0000 101900 102400 1900 EPA7471A  102500 1207 EPA7471A   50190  GE 32957008  HGTOT     3.94   8.66         20.6      UGKG         0.00  W 1.00  MER179   50427  AW2 100  32957008.0  10 43.3  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  AC228     2.27   8.55         136       PCG   3.14   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  AC227     7.61   21.11        358       PCG   6.75   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  BA133     0.794  1.894        1.10      PCG   0.550  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CA249     0.757  1.855        3.80      PCG   0.549  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CA251     2.68   6.04   U     -2.52     PCG   1.69   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CE141     2.10   6.02         135       PCG   1.96   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CE144     4.40   10.26  U     2.94      PCG   2.93   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CO57      0.536  1.64         4.69      PCG   0.552  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CO58      0.749  1.705  U     -0.80     PCG   0.478  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CO60      0.688  1.48   U     -0.0919   PCG   0.407  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CS134     0.591  1.385        1.82      PCG   0.397  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CS135     2.93   12.85        493       PCG   4.96   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  CS137     0.603  1.465  U     0.577     PCG   0.431  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  EU152     1.92   4.72   U     -0.243    PCG   1.40   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  EU154     1.86   4.52   U     1.05      PCG   1.33   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  K40       7.72   17.84        24.4      PCG   5.06   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  MN54      0.622  1.694        2.55      PCG   0.536  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  NA22      0.654  1.614  U     0.380     PCG   0.480  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  NB94      0.658  2.014        4.81      PCG   0.678  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  NP239     3.81   8.23   U     3.54      PCG   2.21   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  PB212     1.12   3.52         143       PCG   1.20   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  PM144     0.571  1.457  U     0.477     PCG   0.443  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  PM146     0.847  2.513        4.19      PCG   0.833  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  RA226     1.08   7.24         743       PCG   3.08   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  RA228     2.27   8.55         136       PCG   3.14   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  RU103     0.904  2.018  U     -0.292    PCG   0.556  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  RU106     5.31   11.85  U     2.02      PCG   3.27   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  SB124     0.772  1.848  U     0.548     PCG   0.537  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  SB125     2.11   5.89         22.0      PCG   1.89   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  SN113     0.945  2.333  U     0.0904    PCG   0.694  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  SN126     2.09   5.31         61.0      PCG   1.61   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  Y88       0.619  2.151        3.54      PCG   0.766  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  ZN65      1.95   4.19         20.3      PCG   1.12   0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110300 1813 N         111300 0846 EPIA-013B  50652  GP 32957008  ZR95      1.39   3.354  U     0.621     PCG   0.982  0.00  D 1     GAMMA9   52273  SRB 100  32957008.0  10 1.00  AB93796N
696-2-B   101300 0000 101900 110800 1314 N         110800 2248 EPA300.0   52579  GE 32957008  OXALATE   1.13   6.00   U     6.00      MGKG         0.00  W 1.00  IC1      52629  RWS 100  32957008.0  10 10.0  AB93796N
696-2-B   101300 0000 101900 110800 1314 N         111000 0909 EPA300.0   52578  GE 32957008  SO4  ·    790    2000         64200     MGKG         0.00  W 1000  IC1      52615  RWS 100  32957008.0  10 10.0  AB93796N
696-2-B   101300 0000 101900 110800 1314 N         111000 1230 EPA300.0   52578  GE 32957008  BR        4.00   12.5         172       MGKG         0.00  W 25.0  IC1      52615  RWS 100  32957008.0  10 10.0  AB93796N
696-2-B   101300 0000 101900 110800 1314 N         111000 1230 EPA300.0   52578  GE 32957008  CL        6.50   25.0         303       MGKG         0.00  W 25.0  IC1      52615  RWS 100  32957008.0  10 10.0  AB93796N
696-2-B   101300 0000 101900 110800 1314 N         111000 1230 EPA300.0   52578  GE 32957008  F         4.25   12.5         175       MGKG         0.00  W 25.0  IC1      52615  RWS 100  32957008.0  10 10.0  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  AGTOT     188    467          758       UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  ALTOT     720    4670     V   14700000  UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  ASTOT     244    467          1030000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  BATOT     86.8   467          90500     UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  BETOT     58.1   467          34600     UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  BTOT      766    4670         301000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  CATOT     2240   9350         14600000  UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  CDTOT     71.3   467          14900     UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  COTOT     104    467          1090000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  CRTOT     121    467          318000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  CUTOT     187    467          973000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  MGTOT     344    1870         34800000  UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  MOTOT     159    935          513000    UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B  111700 1250 EPA6010B   50200  GE 32957009  NITOT     135    467          1450000   UGKG         0.00  W 2.00  TRACE2   50462  RMJ 100              10 46.7  AB93796N
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696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           PBTOT    165    467            400000    UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           SBTOT    152    935            951       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           SETOT    272    467            24300     UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           SNTOT    270    935        V   7160      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           SRTOT    48.7   467            82100     UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           TITOT    62.8   467            176000    UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           TLTOT    374    935            1220      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           UTOT     1640   4670           462000    UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           VTOT     138    467            582000    UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1250 EPA6010B  50200  GE 32957009           ZNTOT    257    467            461000    UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1423 EPA6010B  50200  GE 32957009           FETOT    3740   23400          90600000  UGKG          0.00         W 10.0  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1423 EPA6010B  50200  GE 32957009           KTOT     21400  46700          26900000  UGKG          0.00         W 10.0  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1423 EPA6010B  50200  GE 32957009           NATOT    2860   46700      V   59800000  UGKG          0.00         W 10.0  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1700 EPA3050B   111700 1601 EPA6010B  50200  GE 32957009           MNTOT    1650   9350           9090000   UGKG          0.00         W 20.0  TRACE2    50462  RMJ 100                10 46.7  AB93796N
696-GRAB  101300 0000 101900 102400 1800 N          103000 2038 EPA300.0  50188  GE 32957009           NO2      2.00   4.99    U      4.99      MGKG          0.00         W 10.0  IC1       50370  HSC 100  32957009.0    10 9.98  AB93796N
696-GRAB  101300 0000 101900 102400 1800 N          103000 2038 EPA300.0  50188  GE 32957009           OPO4     3.99   9.98           137       MGKG          0.00         W 10.0  IC1       50370  HSC 100  32957009.0    10 9.98  AB93796N
696-GRAB  101300 0000 101900 102400 1800 N          103100 0042 EPA300.0  50188  GE 32957009           NO3      200    499            38600     MGKG          0.00         W 1000  IC1       50370  HSC 100  32957009.0    10 9.98  AB93796N
696-GRAB  101300 0000 101900 102400 1900 EPA7471A   102500 1209 EPA7471A  50190  GE 32957009           HGTOT    3.95   8.68           26.2      UGKG          0.00         W 1.00  MER179    50427  AW2 100  32957009.0    10 43.4  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           AC228    2.14   7.94           118       PCG  2.90     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           AC227    7.04   20.86          400       PCG  6.91     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           BA133    0.710  1.816          1.07      PCG  0.553    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CA249    0.678  1.67           3.82      PCG  0.496    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CA251    2.44   5.52    U      -0.751    PCG  1.54     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CE141    2.16   5.84           129       PCG  1.84     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CE144    4.10   9.24    U      -4.99     PCG  2.57     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CO57     0.499  1.383          5.28      PCG  0.442    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CO58     0.702  1.708   U      -0.346    PCG  0.503    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CO60     0.637  1.415   U      -0.323    PCG  0.389    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CS134    0.493  1.383          0.930     PCG  0.445    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CS135    2.69   8.59           313       PCG  2.95     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           CS137    0.551  1.319   U      0.0833    PCG  0.384    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           EU152    1.73   4.29           5.45      PCG  1.28     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           EU154    1.81   4.43    U      1.47      PCG  1.31     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           K40      8.31   21.33          38.8      PCG  7.51     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           MN54     0.582  1.506          1.81      PCG  0.462    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           NA22     0.622  1.566   U      0.530     PCG  0.472    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           NB94     0.605  1.727          4.72      PCG  0.561    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           NP239    3.60   8.46           3.84      PCG  2.43     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           PB212    1.02   3.18           124       PCG  1.08     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           PM144    0.515  1.259   U      0.297     PCG  0.372    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           PM146    0.760  1.85           2.56      PCG  0.545    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           RA226    1.02   6.36           695       PCG  2.67     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           RA228    2.14   7.94           118       PCG  2.90     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           RU103    0.819  1.813   U      -0.0042   PCG  0.497    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           RU106    4.82   10.74   U      -0.818    PCG  2.96     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           SB124    0.711  1.949          1.29      PCG  0.619    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           SB125    1.94   5.14           22.1      PCG  1.60     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           SN113    0.840  2.06    U      0.00982   PCG  0.610    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           SN126    2.04   4.76           71.5      PCG  1.36     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           Y88      0.561  1.877          3.78      PCG  0.658    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           ZN65     1.50   3.5            6.22      PCG  1.00     0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110300 1813 N          111300 0847 EPIA-013B 50652  GP 32957009           ZR95     1.29   3.074          1.59      PCG  0.892    0.00         D 1     GAMMA10   52273  SRB 100  32957009.0    10 1.00  AB93796N
696-GRAB  101300 0000 101900 110800 1314 N          110800 2308 EPA300.0  52579  GE 32957009           OXALATE  1.13   6.00    U      6.00      MGKG          0.00         W 1.00  IC1       52629  RWS 100  32957009.0    10 10.0  AB93796N
696-GRAB  101300 0000 101900 110800 1314 N          111000 0924 EPA300.0  52578  GE 32957009           SO4      790    2000           67200     MGKG          0.00         W 1000  IC1       52615  RWS 100  32957009.0    10 10.0  AB93796N
696-GRAB  101300 0000 101900 110800 1314 N          111000 1245 EPA300.0  52578  GE 32957009           BR       4.00   12.5    U      12.5      MGKG          0.00         W 25.0  IC1       52615  RWS 100  32957009.0    10 10.0  AB93796N
696-GRAB  101300 0000 101900 110800 1314 N          111000 1245 EPA300.0  52578  GE 32957009           CL       6.50   25.0           283       MGKG          0.00         W 25.0  IC1       52615  RWS 100  32957009.0    10 10.0  AB93796N
696-GRAB  101300 0000 101900 110800 1314 N          111000 1245 EPA300.0  52578  GE 32957009           F        4.25   12.5           179       MGKG          0.00         W 25.0  IC1       52615  RWS 100  32957009.0    10 10.0  AB93796N
LB        102400 1800 102400 102400 1800 N          103000 1717 EPA300.0  50188  GE 1000120398   3     NO2      0.203  0.508   U      0.508     MGKG          0.00         W 1.00  IC2       50370  HSC 100              D 1 10.2  AB93796N
LB        102400 1800 102400 102400 1800 N          103000 1717 EPA300.0  50188  GE 1000120398   3     NO3      0.203  0.508   U      0.508     MGKG          0.00         W 1.00  IC2       50370  HSC 100              D 1 10.2  AB93796N
LB        102400 1800 102400 102400 1800 N          103000 1717 EPA300.0  50188  GE 1000120398   3     OPO4     0.406  1.02    U      1.02      MGKG          0.00         W 1.00  IC2       50370  HSC 100              D 1 10.2  AB93796N
LB        102400 1800 102400 102400 1800 N          103000 1731 EPA300.0  50188  GE 1000120399   2D    NO2      0.199  0.496          104       MGKG          99.3  104    W 1.00  IC2       50370  HSC 100              D 1 9.93  AB93796N
LB        102400 1800 102400 102400 1800 N          103000 1731 EPA300.0  50188  GE 1000120399   2D    NO3      0.199  0.496          52.3      MGKG          49.6  105    W 1.00  IC2       50370  HSC 100              D 1 9.93  AB93796N
LB        102400 1800 102400 102400 1800 N          103000 1731 EPA300.0  50188  GE 1000120399   2D    OPO4     0.397  0.993          101       MGKG          99.3  101    W 1.00  IC2       50370  HSC 100              D 1 9.93  AB93796N
689-1-T   101200 0000 101900 102400 1800 N          103000 1800 EPA300.0  50188  GE 1000120400   1     NO2      2.00   4.99           11.4      MGKG          0.00         W 10.0  IC1       50370  HSC 100              D 1 9.98  AB93796N
689-1-T   101200 0000 101900 102400 1800 N          103000 1800 EPA300.0  50188  GE 1000120400   1     OPO4     3.99   9.98           29.6      MGKG          0.00         W 10.0  IC1       50370  HSC 100              D 1 9.98  AB93796N
689-1-T   101200 0000 101900 102400 1800 N          103000 2204 EPA300.0  50188  GE 1000120400   1     NO3      200    499            39000     MGKG          0.00         W 1000  IC1       50370  HSC 100              D 1 9.98  AB93796N
689-1-T   101200 0000 101900 102400 1800 N          103000 1814 EPA300.0  50188  GE 1000120401   2A    NO2      2.00   5.00           104       MGKG          100   93     W 10.0  IC1       50370  HSC 100              D 1 10.0  AB93796N
689-1-T   101200 0000 101900 102400 1800 N          103000 1814 EPA300.0  50188  GE 1000120401   2A    OPO4     4.00   10.0           105       MGKG          100   68     W 10.0  IC1       50370  HSC 100              D 1 10.0  AB93796N
689-1-T   101200 0000 101900 102400 1800 N          103000 2219 EPA300.0  50188  GE 1000120401   2A    NO3      200    500            38900     MGKG          50.0  1210   W 1000  IC1       50370  HSC 100              D 1 10.0  AB93796N
LB        102400 1900 102400 102400 1900 EPA7471A   102500 1141 EPA7471A  50190  GE 1000120410   3     HGTOT    4.55   10.0    U      10.0      UGKG          0.00         W 1.00  MER179    50427  AW2 100              D 1 50.0  AB93796N
689-1-T   101200 0000 101900 102400 1900 EPA7471A   102500 1150 EPA7471A  50190  GE 1000120411   2A    HGTOT    4.06   8.93           149       UGKG          89.3  102    W 1.00  MER179    50427  AW2 100              D 1 44.6  AB93796N
689-1-T   101200 0000 101900 102400 1900 EPA7471A   102500 1151 EPA7471A  50190  GE 1000120412   2B    HGTOT    4.34   9.54           152       UGKG          95.4  98     W 1.00  MER179    50427  AW2 100              D 1 47.7  AB93796N
LB        102400 1900 102400 102400 1900 EPA7471A   102500 1146 EPA7471A  50190  GE 1000120413   2D    HGTOT    68.3   150            3160      UGKG          3130  101    W 5.00  MER179    50427  AW2 100              D 1 150   AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     AGTOT    201    500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     ALTOT    770    5000    J  N   1100      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     ASTOT    261    500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     BATOT    92.9   500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     BETOT    62.2   500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     BTOT     820    5000    U      5000      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     CATOT    2400   10000   U      10000     UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     CDTOT    76.3   500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     COTOT    111    500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     CRTOT    129    500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     CUTOT    200    500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     FETOT    800    5000    J  N   3110      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     KTOT     4590   10000   U      10000     UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     MGTOT    368    2000    U      2000      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     MNTOT    177    1000    U      1000      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     MOTOT    170    1000    U      1000      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     NATOT    611    10000   J  N   4640      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     NITOT    144    500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     PBTOT    198    500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     SBTOT    163    1000    U      1000      UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     SETOT    291    500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     SNTOT    289    1000    J  N   376       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     SRTOT    52.1   500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
LB        102400 1700 102400 102400 1700 EPA3050B   111700 1127 EPA6010B  50200  GE 1000120460   3     TITOT    67.2   500     U      500       UGKG          0.00         W 2.00  TRACE2    50462  RMJ 100              D 1 50.0  AB93796N
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LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	TLTOT	400	1000	U	1000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	UTOT	1760	5000	U	5000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	VTOT	148	500	U	500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	ZNTOT	275	500	U	500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	AGTOT	183	455		18100	UGKG		22700	74	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	ALTOT	700	4550	V	13900000	UGKG		227000	71	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	ASTOT	237	455		1390000	UGKG		22700	-99	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	BATOT	84.5	455		156000	UGKG		22700	57	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	BETOT	56.5	455		32800	UGKG		22700	63	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	BTOT	745	4550		283000	UGKG		22700	26	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	CATOT	2180	9090		17700000	UGKG		227000	-161	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	CDTOT	69.4	455		20000	UGKG		22700	59	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	COTOT	101	455		1970000	UGKG		22700	-194	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	CRTOT	117	455		351000	UGKG		22700	47	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	CUTOT	182	455		1240000	UGKG		22700	-73	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	MGTOT	335	1820		34100000	UGKG		227000	-161	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	MOTOT	155	909		424000	UGKG		22700	20	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	NITOT	131	455		2860000	UGKG		22700	-267	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	PBTOT	180	455		667000	UGKG		22700	-51	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	SBTOT	148	909		14300	UGKG		22700	55	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	SETOT	265	455		63100	UGKG		22700	52	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	SNTOT	263	909	V	23900	UGKG		22700	66	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	SRTOT	47.4	455		89100	UGKG		22700	62	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	TITOT	61.1	455		157000	UGKG		22700	69	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	TLTOT	364	909		17500	UGKG		22700	64	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	UTOT	1600	4550		603000	UGKG		22700	20	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	VTOT	135	455		311000	UGKG		22700	49	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	ZNTOT	250	455		401000	UGKG		22700	-50	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1322	EPA6010B	50200	GE	1000120461	2A	FETOT	3640	22700		79600000	UGKG		227000	980	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1322	EPA6010B	50200	GE	1000120461	2A	KTOT	20900	45500		25300000	UGKG		227000	180	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1322	EPA6010B	50200	GE	1000120461	2A	NATOT	2780	45500	V	68400000	UGKG		227000	839	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1500	EPA6010B	50200	GE	1000120461	2A	MNTOT	1610	9090		8190000	UGKG		22700	1170	W	20.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	AGTOT	183	455		17700	UGKG		22700	73	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	ALTOT	700	4550	V	13700000	UGKG		227000	-30	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	ASTOT	237	455		1370000	UGKG		22700	-201	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	BATOT	84.5	455		154000	UGKG		22700	47	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	BETOT	56.5	455		32700	UGKG		22700	62	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	BTOT	745	4550		279000	UGKG		22700	11	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	CATOT	2180	9090		17500000	UGKG		227000	-272	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	CDTOT	69.4	455		20100	UGKG		22700	60	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	COTOT	101	455		1940000	UGKG		22700	-340	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	CRTOT	117	455		346000	UGKG		22700	26	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	CUTOT	182	455		1210000	UGKG		22700	-182	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	MGTOT	335	1820		33600000	UGKG		227000	-417	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	MOTOT	155	909		417000	UGKG		22700	-14	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	NITOT	131	455		2820000	UGKG		22700	-431	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	PBTOT	180	455		658000	UGKG		22700	-91	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	SBTOT	148	909		14500	UGKG		22700	55	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	SETOT	265	455		62900	UGKG		22700	51	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	SNTOT	263	909	V	23900	UGKG		22700	66	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	SRTOT	47.4	455		87900	UGKG		22700	57	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	TITOT	61.1	455		155000	UGKG		22700	63	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	TLTOT	364	909		17600	UGKG		22700	65	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	UTOT	1600	4550		592000	UGKG		22700	-28	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	VTOT	135	455		307000	UGKG		22700	32	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	ZNTOT	250	455		396000	UGKG		22700	-71	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1328	EPA6010B	50200	GE	1000120462	2B	FETOT	3640	22700		72900000	UGKG		227000	-1960	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1328	EPA6010B	50200	GE	1000120462	2B	KTOT	20900	45500		23400000	UGKG		227000	-658	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1328	EPA6010B	50200	GE	1000120462	2B	NATOT	2780	45500	V	62200000	UGKG		227000	-1890	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1505	EPA6010B	50200	GE	1000120462	2B	MNTOT	1610	9090		7950000	UGKG		22700	138	W	20.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	AGTOT	201	500		122000	UGKG		119000	102	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	ALTOT	770	5000	V	8850000	UGKG		7980000	111	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	ASTOT	261	500		132000	UGKG		132000	100	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	BATOT	92.9	500		157000	UGKG		136000	115	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	BETOT	62.2	500		99900	UGKG		95900	104	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	BTOT	820	5000		112000	UGKG		115000	97	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	CATOT	2400	10000		11800000	UGKG		11900000	99	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	CDTOT	76.3	500		117000	UGKG		117000	100	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	COTOT	111	500		114000	UGKG		114000	100	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	CRTOT	129	500		92300	UGKG		91000	101	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	CUTOT	200	500		129000	UGKG		121000	106	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	FETOT	800	5000	V	15200000	UGKG		11400000	133	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	KTOT	4590	10000		3020000	UGKG		3030000	100	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	MGTOT	388	2000		3080000	UGKG		3010000	102	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	MNTOT	177	1000		341000	UGKG		310000	110	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	MOTOT	170	1000		99500	UGKG		94900	105	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	NATOT	611	10000	V	853000	UGKG		798000	107	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	NITOT	144	500		161000	UGKG		155000	104	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	PBTOT	198	500		140000	UGKG		144000	97	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	SBTOT	163	1000		81100	UGKG		32300	251	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	SETOT	291	500		81500	UGKG		88800	92	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	SNTOT	289	1000	V	100000	UGKG		101000	99	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	SRTOT	52.1	500		94400	UGKG		79800	118	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	TITOT	67.2	500		318000	UGKG		163000	194	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	TLTOT	400	1000		143000	UGKG		142000	101	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	VTOT	148	500		86400	UGKG		76500	113	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	ZNTOT	275	500		59900	UGKG		58600	102	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	AC228	0.141	.509	U	0.064	PCG	0.184	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	AC227	0.317	.689	U	-0.0193	PCG	0.186	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	BA133	0.0303	.0725	U	-0.0087	PCG	0.0211	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CA249	0.0356	.0778	U	-0.00122	PCG	0.0211	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CA251	0.0969	.2107	U	-0.0169	PCG	0.0569	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CE141	0.0384	.0828	U	-0.0045	PCG	0.0222	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CE144	0.143	.3068	U	-0.0124	PCG	0.0819	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CO57	0.0171	.03702	U	-0.0041	PCG	0.00996	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CO58	0.0304	.0646	U	-0.00286	PCG	0.0171	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CO60	0.0429	.0833	U	0.0161	PCG	0.0202	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N

LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	TLTOT	400	1000	U		1000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	UTOT	1760	5000	U		5000	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	VTOT	148	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1127	EPA6010B	50200	GE	1000120460	3	ZNTOT	275	500	U		500	UGKG		0.00		W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	AGTOT	183	455			18100	UGKG		22700	74	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	ALTOT	700	4550		V	13900000	UGKG		227000	71	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	ASTOT	237	455			1390000	UGKG		22700	-99	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	BATOT	84.5	455			156000	UGKG		22700	57	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	BETOT	56.5	455			32800	UGKG		22700	63	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	BTOT	745	4550			283000	UGKG		22700	26	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	CATOT	2180	9090			17700000	UGKG		227000	-161	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	CDTOT	69.4	455			20000	UGKG		22700	59	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	COTOT	101	455			1970000	UGKG		22700	-194	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	CRTOT	117	455			351000	UGKG		22700	47	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	CUTOT	182	455			1240000	UGKG		22700	-73	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	MGTOT	335	1820			34100000	UGKG		227000	-161	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	MOTOT	155	909			424000	UGKG		22700	20	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	NITOT	131	455			2860000	UGKG		22700	-267	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	PBTOT	180	455			667000	UGKG		22700	-51	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	SBTOT	148	909			14300	UGKG		22700	55	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	SETOT	265	455			63100	UGKG		22700	52	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	SNTOT	263	909		V	23900	UGKG		22700	66	W	2.00	TRACE2	50462	RMJ	100	D	1	45.6	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	SRTOT	47.4	455			89100	UGKG		22700	62	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	TITOT	61.1	455			157000	UGKG		22700	69	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	TLTOT	364	909			17500	UGKG		22700	64	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	UTOT	1600	4550			603000	UGKG		22700	20	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	VTOT	135	455			311000	UGKG		22700	49	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1149	EPA6010B	50200	GE	1000120461	2A	ZNTOT	250	455			401000	UGKG		22700	-50	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1322	EPA6010B	50200	GE	1000120461	2A	FETOT	3640	22700			79600000	UGKG		227000	980	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1322	EPA6010B	50200	GE	1000120461	2A	KTOT	20900	45500			25300000	UGKG		227000	180	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1322	EPA6010B	50200	GE	1000120461	2A	NATOT	2780	45500		V	68400000	UGKG		227000	839	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1500	EPA6010B	50200	GE	1000120461	2A	MNTOT	1610	9090			8190000	UGKG		22700	1170	W	20.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	AGTOT	183	455			17700	UGKG		22700	73	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	ALTOT	700	4550		V	13700000	UGKG		227000	-30	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	ASTOT	237	455			1370000	UGKG		22700	-201	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	BATOT	84.5	455			154000	UGKG		22700	47	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	BETOT	56.5	455			32700	UGKG		22700	62	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	BTOT	745	4550			279000	UGKG		22700	11	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	CATOT	2180	9090			17500000	UGKG		227000	-272	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	CDTOT	69.4	455			20100	UGKG		22700	60	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	COTOT	101	455			1940000	UGKG		22700	-340	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	CRTOT	117	455			346000	UGKG		22700	26	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	CUTOT	182	455			1210000	UGKG		22700	-182	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	MGTOT	335	1820			33600000	UGKG		227000	-417	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	MOTOT	155	909			417000	UGKG		22700	-14	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	NITOT	131	455			2820000	UGKG		22700	-431	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	PBTOT	180	455			658000	UGKG		22700	-91	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	SBTOT	148	909			14500	UGKG		22700	55	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	SETOT	265	455			62900	UGKG		22700	51	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	SNTOT	263	909		V	23900	UGKG		22700	66	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	SRTOT	47.4	455			87900	UGKG		22700	57	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	TITOT	61.1	455			155000	UGKG		22700	63	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	TLTOT	364	909			17600	UGKG		22700	65	W	2.00	TRACE2	50462	RMJ	100	D	1	45.6	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	UTOT	1600	4550			592000	UGKG		22700	-28	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	VTOT	135	455			307000	UGKG		22700	32	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1155	EPA6010B	50200	GE	1000120462	2B	ZNTOT	250	455			396000	UGKG		22700	-71	W	2.00	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1328	EPA6010B	50200	GE	1000120462	2B	FETOT	3640	22700			72900000	UGKG		227000	-1960	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1328	EPA6010B	50200	GE	1000120462	2B	KTOT	20900	45500			23400000	UGKG		227000	-658	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1328	EPA6010B	50200	GE	1000120462	2B	NATOT	2780	45500		V	62200000	UGKG		227000	-1890	W	10.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
689-1-T	101200	0000	101900	102400	1700	EPA3050B	111700	1505	EPA6010B	50200	GE	1000120462	2B	MNTOT	1610	9090			7950000	UGKG		22700	138	W	20.0	TRACE2	50462	RMJ	100	D	1	45.5	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	AGTOT	201	500			122000	UGKG		119000	102	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	ALTOT	770	5000		V	8850000	UGKG		7980000	111	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	ASTOT	261	500			132000	UGKG		132000	100	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	BATOT	92.9	500			157000	UGKG		136000	115	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	BETOT	62.2	500			99900	UGKG		95900	104	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	BTOT	820	5000			112000	UGKG		115000	97	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	CATOT	2400	10000			11800000	UGKG		11900000	99	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	CDTOT	76.3	500			117000	UGKG		117000	100	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	COTOT	111	500			114000	UGKG		114000	100	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	CRTOT	129	500			92300	UGKG		91000	101	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	CUTOT	200	500			129000	UGKG		121000	106	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	FETOT	800	5000		V	15200000	UGKG		11400000	133	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	KTOT	4590	10000			3020000	UGKG		3030000	100	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	MGTOT	368	2000			3080000	UGKG		3010000	102	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	MNTOT	177	1000			341000	UGKG		310000	110	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	MOTOT	170	1000			99500	UGKG		94900	105	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	NATOT	611	10000		V	853000	UGKG		798000	107	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	NITOT	144	500			161000	UGKG		155000	104	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	PBTOT	198	500			140000	UGKG		144000	97	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	SBTOT	163	1000			81100	UGKG		32300	251	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	SETOT	291	500			81500	UGKG		88800	92	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	SNTOT	289	1000		V	100000	UGKG		101000	99	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	SRTOT	52.1	500			94400	UGKG		79800	118	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	TITOT	67.2	500			316000	UGKG		163000	194	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	TLTOT	400	1000			143000	UGKG		142000	101	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	VTOT	148	500			86400	UGKG		76500	113	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	102400	1700	102400	102400	1700	EPA3050B	111700	1133	EPA6010B	50200	GE	1000120463	2D	ZNTOT	275	500			59900	UGKG		58600	102	W	2.00	TRACE2	50462	RMJ	100	D	1	50.0	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	AC228	0.141	.509	U		0.064	PCG	0.184	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	AC227	0.317	.689	U		-0.0193	PCG	0.186	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	BA133	0.0303	.0725	U		-0.0087	PCG	0.0211	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CA249	0.0356	.0778	U		-0.00122	PCG	0.0211	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CA251	0.0969	.2107	U		-0.0169	PCG	0.0569	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CE141	0.0384	.0828	U		-0.0045	PCG	0.0222	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CE144	0.143	.3068	U		-0.0124	PCG	0.0819	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CO57	0.0171	.03702	U		-0.0041	PCG	0.00996	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CO58	0.0304	.0646	U		-0.00286	PCG	0.0171	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N
LB	111300	0848				EPI A-013	111300	0848	EPIA-013B	52273	GP	1000126505	3	CO60	0.0429	.0833	U		0.0161	PCG	0.0202	0.00		W	1	GAMMA11	52273	SRB	0		4	1.00	AB93796N

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LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CS134     0.0332  .0728  U  0.0095     PCG   0.0198  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CS135     0.121   .269   U  -0.0409    PCG   0.074   0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   CS137     0.0314  .0658  U  0.000736   PCG   0.0172  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   EU152     0.0769  .1651  U  0.00648    PCG   0.0441  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   EU154     0.103   .2138  U  -0.00677   PCG   0.0553  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   K40       0.410   1.02   U  0.133      PCG   0.305   0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   MN54      0.035   .0768  U  0.0188     PCG   0.0209  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   NA22      0.0368  .0762  U  -0.00256   PCG   0.0197  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   NB94      0.0286  .0588  U  0.00508    PCG   0.0151  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   NP239     0.135   .2874  U  -0.00351   PCG   0.0762  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   PB212     0.0516  .1266  U  0.0299     PCG   0.0375  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   PM144     0.0325  .0825  U  0.00557    PCG   0.025   0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   PM146     0.0331  .0721  U  -0.0146    PCG   0.0195  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   RA226     0.0643  .1655  U  0.0204     PCG   0.0606  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   RA228     0.141   .509   U  0.064      PCG   0.184   0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   RU103     0.0297  .0613  U  0.00396    PCG   0.0158  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   RU106     0.246   .52    U  -0.027     PCG   0.137   0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   SB124     0.0341  .0731  U  -0.00484   PCG   0.0195  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   SB125     0.0755  .1635  U  0.0178     PCG   0.044   0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   SN113     0.0359  .0791  U  -0.00513   PCG   0.0216  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   SN126     0.0521  .1091  U  0.00912    PCG   0.0285  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   Y88       0.0369  .0787  U  -0.0083    PCG   0.0209  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   ZN65      0.061   .1316  U  -0.0232    PCG   0.0353  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
LB            111300 0848                       EPI A-013  111300 0848 EPIA-013B  52273  GP 1000126505  3   ZR95      0.0538  .1146  U  -0.00614   PCG   0.0304  0.00        W 1     GAMMA11  52273  SRB 0      4  1.00  AB93796N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   AC228     0.185   .503   U  0.0101     PCG   0.159   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   AC227     0.411   .889   U  0.0454     PCG   0.239   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   BA133     0.0433  .1097  U  -0.0377    PCG   0.0332  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CA249     0.0418  .0904  U  0.0043     PCG   0.0243  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CA251     0.125   .2746  U  -0.0429    PCG   0.0748  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CE141     0.0926  .2068  U  0.0117     PCG   0.0571  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CE144     0.213   .477   U  -0.00348   PCG   0.132   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CO57      0.0265  .0591  U  0.00123    PCG   0.0163  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CO58      0.0415  .0955  U  -0.0296    PCG   0.027   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CO60      0.0494  .0982  U  0.0174     PCG   0.0244  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CS134     0.0405  .0871  U  -0.00256   PCG   0.0233  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CS135     0.156   .339   U  -0.00143   PCG   0.0915  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   CS137     0.0338  .1008     0.0657     PCG   0.0335  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   EU152     0.103   .2208  U  0.0228     PCG   0.0569  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   EU154     0.115   .405   U  0.0613     PCG   0.145   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   K40       0.348   1.04   U  0.116      PCG   0.347   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   MN54      0.0409  .0913  U  -0.0175    PCG   0.0252  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   NA22      0.0411  .1455  U  0.0222     PCG   0.0522  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   NB94      0.0347  .0783  U  -0.0215    PCG   0.0218  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   NP239     0.187   .427   U  -0.0696    PCG   0.120   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   PB212     0.0601  .1921  U  0.021      PCG   0.066   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   PM144     0.0385  .0823  U  -0.000682  PCG   0.0219  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   PM146     0.0482  .103   U  0.0127     PCG   0.0274  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   RA226     0.0897  .1881  U  0.0292     PCG   0.0492  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   RA228     0.185   .503   U  0.0101     PCG   0.159   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   RU103     0.0514  .1176  U  -0.0263    PCG   0.0331  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   RU106     0.370   .792   U  -0.0227    PCG   0.211   0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   SB124     0.0509  .1191  U  -0.00796   PCG   0.0341  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   SB125     0.103   .2216  U  0.0202     PCG   0.0593  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   SN113     0.0567  .1183  U  0.0343     PCG   0.0308  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   SN126     0.0673  .1575  U  0.0519     PCG   0.0451  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   Y88       0.0545  .1079  U  0.0106     PCG   0.0267  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   ZN65      0.0819  .1831  U  -0.0482    PCG   0.0506  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
00-CIF-1345   101100 0938 101900                EPI A-013  111200 1135 EPIA-013B  52273  GP 1000126506  1   ZR95      0.0979  .2009  U  0.0379     PCG   0.0515  0.00        D 1     GAMMA3   52273  SRB 100  D 1  1.00  AB23463N
LB            110800 1837                       EPI A-013  110800 1837 EPIA-013B  52273  GP 1000126507  2D  CS137     1.16    7.3       458        PCG   3.07    441   104   D 1     WELL     52273  SRB 100  D 1  1.00  AB93796N
LB            110800 1314 110800 110800 1314 N             110900 1914 EPA300.0   52578  GE 1000127227  3   BR        0.161   0.505  U  0.505      MGKG          0.00        W 1.00  IC2      52615  RWS 100  D 1  10.1  AB93796N
LB            110800 1314 110800 110800 1314 N             110900 1914 EPA300.0   52578  GE 1000127227  3   CL        0.262   1.01   U  1.01       MGKG          0.00        W 1.00  IC2      52615  RWS 100  D 1  10.1  AB93796N
LB            110800 1314 110800 110800 1314 N             110900 1914 EPA300.0   52578  GE 1000127227  3   F         0.172   0.505  U  0.505      MGKG          0.00        W 1.00  IC2      52615  RWS 100  D 1  10.1  AB93796N
LB            110800 1314 110800 110800 1314 N             110900 1914 EPA300.0   52578  GE 1000127227  3   SO4       0.797   2.02   U  2.02       MGKG          0.00        W 1.00  IC2      52615  RWS 100  D 1  10.1  AB93796N
LB            110800 1314 110800 110800 1314 N             110900 1900 EPA300.0   52578  GE 1000127228  2D  BR        0.159   0.495     101        MGKG          99.1  102   W 1.00  IC2      52615  RWS 100  D 1  9.91  AB93796N
LB            110800 1314 110800 110800 1314 N             110900 1900 EPA300.0   52578  GE 1000127228  2D  CL        0.258   0.991     93.4       MGKG          99.1  94    W 1.00  IC2      52615  RWS 100  D 1  9.91  AB93796N
LB            110800 1314 110800 110800 1314 N             110900 1900 EPA300.0   52578  GE 1000127228  2D  F         0.168   0.495     104        MGKG          99.1  105   W 1.00  IC2      52615  RWS 100  D 1  9.91  AB93796N
LB            110800 1314 110800 110800 1314 N             110900 1900 EPA300.0   52578  GE 1000127228  2D  SO4       0.783   1.98      190        MGKG          198   96    W 1.00  IC2      52615  RWS 100  D 1  9.91  AB93796N
689-1-T       101200 0000 101900 110800 1314 N             110900 1705 EPA300.0   52578  GE 1000127229  1   SO4       790     2000      74400      MGKG          0.00        W 1000  IC1      52615  RWS 100  D 1  10.0  AB93796N
689-1-T       101200 0000 101900 110800 1314 N             111000 0952 EPA300.0   52578  GE 1000127229  1   BR        4.00    12.5   U  12.5       MGKG          0.00        W 25.0  IC1      52615  RWS 100  D 1  10.0  AB93796N
689-1-T       101200 0000 101900 110800 1314 N             111000 0952 EPA300.0   52578  GE 1000127229  1   CL        6.50    25.0      307        MGKG          0.00        W 25.0  IC1      52615  RWS 100  D 1  10.0  AB93796N
689-1-T       101200 0000 101900 110800 1314 N             111000 0952 EPA300.0   52578  GE 1000127229  1   F         4.25    12.5      182        MGKG          0.00        W 25.0  IC1      52615  RWS 100  D 1  10.0  AB93796N
689-1-T       101200 0000 101900 110800 1314 N             110900 1719 EPA300.0   52578  GE 1000127230  2A  SO4       790     2000      72400      MGKG          200   -790  W 1000  IC1      52615  RWS 100  D 1  10.0  AB93796N
689-1-T       101200 0000 101900 110800 1314 N             111000 1007 EPA300.0   52578  GE 1000127230  2A  BR        4.00    12.5      149        MGKG          100   149   W 25.0  IC1      52615  RWS 100  D 1  10.0  AB93796N
689-1-T       101200 0000 101900 110800 1314 N             111000 1007 EPA300.0   52578  GE 1000127230  2A  CL        6.50    25.0      391        MGKG          100   84    W 25.0  IC1      52615  RWS 100  D 1  10.0  AB93796N
689-1-T       101200 0000 101900 110800 1314 N             111000 1007 EPA300.0   62578  GE 1000127230  2A  F         4.25    12.5      193        MGKG          100   4     W 25.0  IC1      52615  RWS 100  D 1  10.0  AB93796N
LB            110800 1314 110800 110800 1314 N             110800 1823 EPA300.0   52579  GE 1000127231  3   OXALATE   1.14    6.05   U  6.05       MGKG          0.00        W 1.00  IC1      52629  RWS 100  D 1  10.1  AB93796N
LB            110800 1314 110800 110800 1314 N             110800 1844 EPA300.0   52579  GE 1000127232  2D  OXALATE   1.12    5.95      89.5       MGKG          89.3  100   W 1.00  IC1      52629  RWS 100  D 1  9.91  AB93796N
689-1-T       101200 0000 101900 110800 1314 N             110800 1924 EPA300.0   52579  GE 1000127233  1   OXALATE   1.13    6.00   U  6.00       MGKG          0.00        W 1.00  IC1      52629  RWS 100  D 1  10.0  AB93796N
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SAMPLE RECEIPT REVIEW

Date 10/19/00

Client WSRC/Clemson

Received by LSD

	SAMPLE REVIEW CRITERIA	YES	NO	N/A	COMMENTS/QUALIFIERS
1	Were shipping containers received intact and sealed? If no, notify the Project Manager	✓			
2	Were chain of custody documents included?	✓			
3	Shipping container temperature(s) checked:	✓			Ambient 19°C
4	Is temperature documented on Chain of Custody 10/19/00	~~✓~~	✓		
5	Was shipping container temperature within specifications (4 +/- 2 C) If no, notify Project Manager	✓			
6	Are any of the samples identified by the client as radioactive?	✓			Samples Are RAD
	Were the samples screened for radioactivity?	✓			
	Were the screening results <= background? If results are > background inform RSO		✓		
7	Were chain of custody documents completed correctly? (Ink, signed, match containers)	✓			
8	Were sample containers received intact and sealed? If no, notify the Project Manager	✓			
9	Were all sample containers properly labeled?	✓			
10	Were correct sample containers received?	✓			
11	Preserved samples checked for pH?		✓		
12	Were samples preserved correctly? If no, notify Project Manager	✓			
13	Were samples received within holding time? If No, notify Project Manager	✓			
14	Were VOA vials free of headspace?		✓		
15	ARCOC#				
16	SDG#				32957

PM(A) Review:

Date Reviewed: 10/20/00

Additional Comments:

Work Order Containers

[Submit]

Work Order / Sample No.: 32957

32957001.02 - 1000 ml/P - None

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:02	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957001.02.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957001.02.04 - 50 ml/P

24-OCT-2000 16:46:45	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957001.02.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957001.01 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:18	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

32957002.02 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:41	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

32957002.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

32957002.01.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

32957002.01.04 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957002.01.05 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957002.01.06 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957003.02 - 1000 ml/P - None

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:10	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

32957003.02.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

32957003.02.04 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957003.02.05 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957003.02.06 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957003.01 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:18	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:41	Chad Byas		Sample Return Shelf Radiochem

32957004.02 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

32957004.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:58	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

32957004.01.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957004.01.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957004.01.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957005.02 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

32957005.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957005.01.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957005.01.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957005.01.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957006.02 - 250 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

32957006.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:42	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

32957006.01.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

32957006.01.04 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957006.01.05 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957006.01.06 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957007.02 - 1000 ml/P - None

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

32957007.01 - 1000 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957007.01.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957007.01.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957007.01.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957008.02 - 1000 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:02	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:37:42	Buddy Sosa		IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957008.02.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957008.02.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957008.02.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957008.01 - 250 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

32957009.02 - 1000 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:44:17	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:16:03	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:45:03	Aaron Dias	50190	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:07:00	Calvin Stone	50652	Radiological Soil Preparation
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
03-NOV-2000 16:19:58	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:30:44	Mellie Smith	52578	IC Lab
08-NOV-2000 11:39:18	Buddy Sosa	52579	IC Lab
08-NOV-2000 14:08:58	Buddy Sosa	52615	IC Lab
08-NOV-2000 16:40:07	Buddy Sosa	52629	IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

32957009.02.01 - 50 ml/P

24-OCT-2000 16:16:14	Kristana Davis	50200	Inorganic Prep

32957009.02.04 - 50 ml/P

24-OCT-2000 16:46:44	Aaron Dias	50190	Inorganic Prep
25-OCT-2000 10:44:46	Anson Walsh	50427	Mercury Lab

32957009.02.05 - Gamma Can

07-NOV-2000 12:06:55	Calvin Stone	50652	Radioactive Cooler
07-NOV-2000 14:58:18	Jodi Elliott	52273	Gamma Sample Staging Shelf

32957009.01 - 250 ml/P - 4C

19-OCT-2000 16:54:43	Dionne Francis		Login Area
19-OCT-2000 17:39:40	Patricia Dover		Radioactive Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
24-OCT-2000 18:33:14	Helen Camello	50188	IC Lab
24-OCT-2000 19:10:33	Helen Camello	50370	IC Lab
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem

Work Order Containers

Submit

Work Order / Sample No.: 33055

33055001.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:19	Dionne Francis		Login Area
23-OCT-2000 17:20:15	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

33055001.02.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055001.02.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055001.02.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055001.02.04.06 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055001.01 - 250 ml/P - 4C

23-OCT-2000 16:24:19	Dionne Francis		Login Area
23-OCT-2000 17:22:49	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055002.02 - 250 ml/P - 4C

23-OCT-2000 16:24:19	Dionne Francis		Login Area
23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:15	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:41	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055002.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:19	Dionne Francis		Login Area
23-OCT-2000 17:22:49	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:29	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

33055002.01.01 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055002.01.01.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055002.01.01.05 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055003.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:50	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

33055003.02.01 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055003.02.01.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055003.02.01.05 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055003.01 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:43:18	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055004.02 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:50	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055004.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:58	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

33055004.01.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055004.01.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055004.01.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055004.01.04.06 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055005.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:41:44	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:40	Amy Niedfeldt		Radioactive Cooler
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

33055005.02.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055005.02.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055005.02.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055005.02.04.06 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055005.01 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:50	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055006.02 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055006.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:50	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:29	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:11	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:34	Elijah Singleton		Radioactive Cooler

33055006.01.01 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
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01-NOV-2000 14:49:09	Frankie Davis		Inorganic Prep

33055006.01.01.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055006.01.01.05 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
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33055007.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis	Login Area
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27-OCT-2000 09:37:54	Elijah Singleton	Radioactive Cooler

33055007.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:49	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:29	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:12	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

33055007.01.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055007.01.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:10	Frankie Davis		Inorganic Prep

33055007.01.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055007.01.04.06 - 50 ml/P

01-NOV-2000 14:49:14	Frankie Davis	51164	Inorganic Prep
01-NOV-2000 14:49:15	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055008.02 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:16	Mellie Smith		Main Cooler
24-OCT-2000 15:43:17	Mellie Smith	33055009	Radioactive Cooler
26-OCT-2000 14:44:40	Chad Byas		Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton		Radioactive Cooler

33055008.01 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:22:49	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:21	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 16:11:22	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:16:02	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:29	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:12	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler
33055008.01.01 - 50 ml/P			
24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep
33055008.01.04 - 1000 ml/P			
26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:10	Frankie Davis		Inorganic Prep
33055008.01.04.01 - 50 ml/P			
30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep
33055008.01.04.06 - 50 ml/P			
01-NOV-2000 14:49:15	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055009.02 - 1000 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis		Login Area
23-OCT-2000 17:20:15	Mellie Smith		Main Cooler
24-OCT-2000 15:41:43	Mellie Smith		Radioactive Cooler
24-OCT-2000 16:11:22	Kristana Davis	50200	Inorganic Prep
24-OCT-2000 18:17:24	Amanda Muccio		Sample Return Shelf Login Area
25-OCT-2000 11:18:41	Amy Niedfeldt		Radioactive Cooler
26-OCT-2000 10:42:28	Jodi Elliott		General Chemistry
26-OCT-2000 10:42:29	Jodi Elliott		General Chemistry
26-OCT-2000 11:26:12	Jianguo Li	50629	TCLP EXTRACTION AREA
27-OCT-2000 13:47:11	Michael Kinslow		Radioactive Cooler
03-NOV-2000 11:27:40	Chad Byas		Sample Return Shelf Radiochem
03-NOV-2000 16:19:57	Elijah Singleton		Radioactive Cooler
08-NOV-2000 11:31:39	Mellie Smith		IC Lab
09-NOV-2000 09:52:35	Elijah Singleton		Radioactive Cooler

33055009.02.01 - 50 ml/P

24-OCT-2000 16:11:28	Kristana Davis	50200	Inorganic Prep

33055009.02.04 - 1000 ml/P

26-OCT-2000 11:26:36	Jianguo Li	50629	TCLP EXTRACTION AREA
30-OCT-2000 18:17:15	Amanda Muccio	51161	Inorganic Prep
01-NOV-2000 13:55:10	Aaron Dias	51164	Inorganic Prep
01-NOV-2000 14:49:10	Frankie Davis		Inorganic Prep

33055009.02.04.01 - 50 ml/P

30-OCT-2000 18:17:25	Amanda Muccio	51161	Inorganic Prep

33055009.02.04.06 - 50 ml/P

01-NOV-2000 14:49:15	Frankie Davis	51164	Inorganic Prep
02-NOV-2000 12:13:56	Anson Walsh	51662	Mercury Lab

33055009.01 - 250 ml/P - 4C

23-OCT-2000 16:24:20	Dionne Francis	Login Area
23-OCT-2000 17:22:49	Mellie Smith	Main Cooler
26-OCT-2000 14:44:40	Chad Byas	Sample Return Shelf Radiochem
27-OCT-2000 09:37:54	Elijah Singleton	Radioactive Cooler

CHAIN-OF-CUSTODY

Page 2 of 2

Job Number	00542 ☐	Customer Name:	May, Cecil
		Customer Department:	WPT
Contract Number	AB93796N	Customer Address:	773-42A
		Customer Phone/Beeper:	5-5813 12583

BN

Ship to:
Company: General Engineering Laboratory
Address: 2040 Savage Road
Charleston, South Carolina 29407
Attention: Lee Heath Project Manager

Westinghouse Savannah River Company
Aiken, SC 29808

COC creation date. 10/12/00

Environmental Monitoring Section
Environmental Geochemistry Group

Matrix Key: S=Soil, SO=Solid, SL=Sludge, O=Organic, A=Aqueous

Sample ID:	696-1-T	696-1-B	696-2-T	696-2B	696-GRAB	
Collect Date	10/13/00	10/13/00	10/13/00	10/13/00	10/13/00	
Collect Time	N/A					
No. Containers	2	2	2	2	2	
Matrix	solid	solid	solid	solid	solid	
Sample Analysis Requested						
Mercury in Solid Waste (manual Cold-vapor tech.) (61)	✓	✓	✓	✓	✓	
TCLP, Metals (Prep & Analysis) (20)	✓	✓	✓	✓	✓	
Gamma PHA Scan (118), Ac-227	✓	✓	✓	✓	✓	
Ion Chromatography Scan (194)	✓	✓	✓	✓	✓	
Radium-226 (162)	✓	✓	✓	✓	✓	
Radium-228 (164)	✓	✓	✓	✓	✓	
Inductively Coupled Plasma Mass Spec. Scan (40)	✓		✓	✓	✓	

Per Fax That Cecil May
with send

30 Day TAT PLEASE KEEP SAMPLE RESIDUE AND WASTE SEPARATED FROM ALL WSRC SAMPLES

STR Authorization J D C Crawford

1 Relinquished by:	Date/Time	Received by:	
(Print) Steve Hoeffner	Date 10/18/00	(Print) Joe Davis	10/19/00
(Sign) Steve Hoeffner	Time 3:30 pm	(Sign)	0900
2 Relinquished by:	Date/Time	Received by:	
(Print)	Date	(Print)	
(Sign)	Time	(Sign)	
3 Relinquished by:	Date/Time	Received by:	
(Print)		(Print)	
(Sign)	Time	(Sign)	
4 Relinquished by:	Date/Time	Received by:	
(Print)		(Print)	
(Sign)	Time	(Sign)	

CHAIN-OF-CUSTODY

Page 1 of 2

32957, 33055

Job Number 00542 ☐	Customer Name:	May, Cecil	
	Customer Department:	WPT	
Contract Number AB93796N	Customer Address:	773-42A	
	Customer Phone/Beeper:	5-5813	12583

BN

Ship to:

Company: General Engineering Laboratory
Address: 2040 Savage Road
Charleston, South Carolina 29407
Attention: Lee Health Project Manager

Westinghouse Savannah River Company
Aiken, SC 29808

COC creation date. 10/12/00

Environmental Monitoring Section
Environmental Geochemistry Group

Matrix Key: S=Soil, SO=Solid, SL=Sludge, O=Organic, A=Aqueous

Sample ID:	689-1-T	689-1-B	689-2-T	689-2-B		
Collect Date	10/12/00	10/12/00	10/12/00	10/12/00		
Collect Time	N/A					
No. Containers	2	2	2	2	3	
Matrix	solid	solid	solid	solid		
Sample Analysis Requested						
Mercury in Solid Waste (manual Cold-vapor tech.) (61)	✓	✓	✓	✓		
TCLP, Metals (Prep & Analysis) (20)	✓	✓		✓		
Gamma PHA Scan (118), Ac-227✓	✓	✓	✓	✓		
Ion Chromatography Scan (194)	✓		✓	✓		
Radium-226 (162) in 8 list	✓	✓	✓	✓		
Radium-228 (164) in 8 list	✓	✓	✓	✓		
Inductively Coupled Plasma Mass Spec. Scan (40)	✓	✓				

Per Fax that will send Cecil May

30 Day TAT PLEASE KEEP SAMPLE RESIDUE AND WASTE SEPARATED FROM ALL WSRC SAMPLES

STR Authorization J D C Crawford

1 Relinquished by:	Date/Time	Received by:	2 Relinquished by:	Date/Time	Received by:
(Print) Steve Hoeffner	Date 10/18/00	(Print) Joe Davis 10/19/00	(Print)	Date	(Print)
(Sign) Steve Hoeffner	Time ~~10/10/00~~ 3:30pm	(Sign) 0900	(Sign)	Time	(Sign)
3 Relinquished by:	**Date/Time** 3745	**Received by:**	**4 Relinquished by:**	**Date/Time**	**Received by:**
(Print)		(Print)	(Print)		(Print)
(Sign)	Time	(Sign)	(Sign)	Time	(Sign)

APPENDIX 6. Chemical Analyses of the Water Soluble Fraction of the Fernald Silo 3 Waste

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

CASE NARRATIVE REPORT
for
Westinghouse Savannah River Site
Subcontract No. AB93796N
Job# 00542A

December 12, 2000

Laboratory Identification:

General Engineering Laboratories, Inc.

Summary:

Sample receipt

Four liquid and four solid samples for Westinghouse Savannah River Site arrived at General Engineering Laboratories, Inc., (GEL) Charleston, South Carolina on November 10, 2000 for analysis. The samples listed on the chain arrived to the laboratory with a cooler temperature of 19° C. A thirty-day turnaround was requested on the chain.

The samples were stored properly according to SW-846 procedures and GEL Standard Operating Procedures (SOP).

The laboratory received the following sample:

Description	Sample Number
33976001	689-A-L
33976002	689-B-L
33976003	696-A-L
33976004	696-B-L
33977001	689-A-S
33977002	689-B-S
33977003	696-A-S
33977004	696-B-S

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are written by analytical fraction in the enclosed narratives.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Level II Certificate of Analysis, QC Sample Summaries, Chain of Custody, Sample Tracking Report, Nonconformance Reports if applicable & Electronic Data Hardcopy Report.

The Level **II** Certificate of Analysis contains the following headings:

Sample ID:	Sample Identification
Lab ID:	This is the laboratory identification number
Matrix:	Sample matrix
Date Collected:	Date of sample collection
Date Received:	Date of sample receipt by the laboratory
Priority:	Internal status of sample turnaround
Collector:	Party responsible for sample collection.

The detail on the Certificate includes the following:

Parameter:	Analyte or characteristic tested for in the sample
Qualifier:	Qualifier used for data interpretation
Result:	Final result of each parameter.
DL:	Method Detection Limit
RL:	Reporting Limit
Units:	Units of final result
DF:	Dilution factor
Analyst:	Initials of analyst who performed the test
Date:	Date of analysis
Time:	Time of analysis
Batch:	Analytical batch in which the sample was analyzed
Method:	Analytical method used for the analysis of the sample. Identified on the report numerically with a corresponding table.
Surrogate Recovery:	Provided for organic analysis only. Surrogate compound identified.
Test:	Analytical test associated with surrogate compound.
Percent%:	Surrogate percent recovery
Acceptable Limits:	Limits established for surrogate recoveries based upon the method requirements.

The QC Summary Report contains the following headings:

Sample Parameter:	Analyte or characteristic tested for in the QC sample
Type:	Type of QC sample (i.e., blank, dup, LCS, LCS dup, MS, MSD)
Batch:	Analytical batch in which the QC sample was analyzed

NOM:	Nominal concentration of the spiking compound
Sample:	Amount of compound found in the sample associated with the QC sample.
QC:	Amount of compound found in the QC sample.
Units:	Units of final result
RPD%:	Relative percent difference between LCS/LCS dup, MS/MSD, and Sample/Sample duplicate
REC%:	Recovery for the control samples
Range:	Acceptance limits for control samples
Analyst:	Initials of analyst who performed the test
Date:	Date of analysis
Time:	Time of analysis

Types of QC samples that may be found on the QC Summary Report are:

Blank:	Results of the blank analysis for the sample batch
Dup:	Duplicate analysis of sample
LCS:	Lab control sample
LCS dup:	Lab control sample duplicate
MS:	Matrix spike
MSD:	Matrix spike duplicate

The following are definitions of reporting limits used at General Engineering Laboratories:

DL — <u>Detection Limit:</u> The minimum level of an analyte that can be determined (identified not quantified) with 99% confidence. The values are normally achieved by preparing and analyzing seven aliquots of laboratory water spiked 1 to 5 times the estimated MDL, taking the standard deviation and multiplying it against the one-tailed t-statistic at 99%. This computed value is then verified for reasonableness by repeating the study using the concentration found in the initial study, calculating an F-ratio, and computing the final limit. Sample specific preparation and dilution factors are applied to these limits when they are reported.

The detection limit is the minimum concentration of a substance that can be identified, measured, and reported with 99% confidence that the analyte concentration is above zero. It answers the question "Is It Present".

QL — <u>Quantitation Limit:</u> The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The QL is generally 5 to 10 times the MDL. However, it may be nominally chosen within these guidelines to simplify data reporting. For many analytes the QL analyte concentration

	is selected as the lowest non-zero standard in the calibration curve. Sample QL's are highly matrix-dependent. Sample specific preparation and dilution factors are applied to these limits when they are reported. The QL is always ≥ DL
RL	Reporting Limit: Same as the QL except where driven by contract or client specifications. If the sample specific preparation and dilution factors cause the QL to be elevated above the RL, then the QL is used as the RL.

The quantitation limit is the lowest level at which a chemical may be accurately and reproducibly quantitated. It answers the question "HOW MUCH IS PRESENT".

Interpretation of RESULT column on the Certificate of Analysis:

If the final concentration in the sample was found to be above the RL, then the value reported is reported without a flag;

If the final concentration in the sample was found to be below the RL but above the DL, then the value reported is flagged with a "J";

If the final concentration in the sample was found to be below the DL, the value reported is flagged with a "U".

Quality Control Flags

General Engineering Laboratories maintains acceptance criteria for QC samples through use of statistical process control (SPC). The SPC limits are used to qualify data usability. The flagging criterion identified in WSRC AN98 Format does not necessarily coincide with the laboratory SPC criteria. There may be instances where the Electronic Data Deliverable (EDD) has flagged data based on the AN98 criteria and the lab has not identified the data to be outside of established control limits.

Those instances where the QC has not met laboratory SPC established criteria will be noted in the section case narratives that are included in this package.

This data package, to the best of my knowledge, is in compliance with technical and administrative requirements.

Lee M Heath

Lee M. Heath
Project Manager

Case Narrative for
WSRC006
SDG# 00542A
Metals Analysis by ICP
Mercury Analysis by CVAA

Sample Analysis:

The following samples were prepared and analyzed according to the methods referenced in the "Method/Analysis Information" section of this narrative:

Sample ID	Client ID
33977001	689-A-S
33977002	689-B-S
33977003	696-A-S
33977004	696-B-S
1000128746	Method Blank (MB) **ICP**-53659/53116
1000128749	Laboratory Control Sample (LCS)
1000128753	689-A-SL (33977001) Serial Dilution (SD)
1000128751	689-A-SS (33977001) Matrix Spike (MS)
1000128752	689-A-SSD (33977001) Matrix Spike Duplicate (MSD)
1000128801	Method Blank (MB) **CVAA**-53359/53124
1000128802	Laboratory Control Sample (LCS)
1000128807	Laboratory Control Sample Duplicate (LCSD)
1000128805	689-A-SS (33977001) Matrix Spike (MS)
1000128806	689-A-SSD (33977001) Matrix Spike Duplicate (MSD)

Method/Analysis Information:

Analytical Batch #:	53659, 53359
Prep Batch #:	53116, 53124
Procedure:	ICP-TRACE 6010 SOIL& EPA 7471 SOIL
Analytical Method:	SW846 6010B & SW846 7471A
Prep Method:	SW846 3050B & SW846 7471A

System Configuration

The ICP analysis was performed on a Thermo Jarrell Ash 61E Trace axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Meinhardt nebulizer, cyclonic spray chamber, and yttrium internal standard. Operating conditions for the Trace ICP are set at a power level of 950 watts. The instrument has a peristaltic pump flow rate of 140 RPM (2.0 mL/min sample uptake rate), argon gas flows of 15 L/min and 0.5 L/min for the torch and auxiliary gases, and a pressure setting of 26 PSI for the nebulizer.

Mercury analysis was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-400) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 254 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9-mL/min and nitrogen carrier gas rate of 5 L/min.

Sample Preparation

All samples were prepared in accordance with the referenced SW-846 procedures.

Calibration Information:

Initial Calibration

Instrument calibrations are conducted using method and instrument manufacturer's specifications. All initial calibration requirements have been met for the analyses.

CRDL Requirements

All CRDL standards met the referenced advisory control limits.

Continuing Calibration Verification (CCV) Standards

All continuing calibration verification (CCV) standards bracketing analyses associated with this SDG met the established acceptance criteria.

Continuing Calibration Blanks (CCB) Requirements

All continuing calibration blanks (CCB) bracketing analyses associated with this SDG met the established acceptance criteria.

ICSA/ICSAB Requirements

All interference check standard (ICSA and ICSAB) elements associated with this SDG met the established acceptance criteria.

Quality Control (QC) Information:

Method Blank Acceptance

The preparation blanks analyzed with this SDG did not contain analytes of interest at concentrations greater than the reporting limits (RL), with the exception of iron that was present at a concentration that exceeded the RL. The samples in this SDG that are associated with the ICP method blank all contained iron at concentrations that were significantly greater than 10X above the amount present in the affected blank.

LCS/LCSD Recovery Statement

All LCS spike recoveries for this SDG were within the statistical process control (SPC) limits except antimony and titanium. The recoveries for antimony and titanium did meet the certified limits established by vendor of the LCS source at 84 and 125 percent, respectively. Upon certification of additional LCS data points, the laboratory will update the SPC database to reflect the current instrument readings.

MS/MSD Recovery Statement

Sample 689-A-S (33977001) was designated as the quality control sample for the ICP and CVAA batches. Each batch included a matrix spike (MS) and a matrix spike duplicate (MSD). The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS analyses met the recommended quality control acceptance criteria for percent recovery for all applicable analytes except antimony, beryllium, cadmium, selenium, silver, strontium, thallium and tin, as indicated by the "*" qualifiers. Numerous additional elements are qualified with "*" flags in the MS analyses; however, the parent sample's concentrations for these elements exceeded the spiking concentration by greater than a factor of 4.

MS/MSD RPD Statement

The relative percent differences (RPD) between each element in the MS and MSD was within the established acceptance criteria.

Serial Dilution % Difference Statement

The serial dilution is used to assess interference caused by matrix suppression or enhancement. Raw element concentrations that are at least 50X the instrument detection limit (IDL) for ICP analyses are applicable for serial dilution assessment. The majority of applicable analytes did not meet the established criteria for serial dilution evaluation based on percent difference values of <10%, including: aluminum, arsenic, barium, beryllium, boron, calcium, chromium, cobalt, copper, lead, magnesium, manganese, molybdenum, nickel, potassium, selenium, strontium, titanium, uranium, vanadium and zinc. The significant number of element failures in the serial dilution analysis, coupled with numerous recovery outliers in the MS analyses, possibly indicate the presence of matrix effects.

Technical Information:

Holding Time Specifications

All samples in this SDG met the specified holding time requirements.

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. All ICP samples were diluted a minimum of 2X based on the solid matrix. The following additional dilutions were required during the ICP analysis do to the presence of over range concentrations of the indicated elements:

Client ID	Sample ID	Dilution	Elements
689-A-S	33977001	50	Iron, magnesium, zinc
689-B-S	33977002	50	Iron, magnesium, zinc
696-A-S	33977003	50	Iron, magnesium, zinc
696-B-S	33977004	50	Iron, magnesium, zinc

No dilutions were required for the CVAA analyses.

Miscellaneous Information:

NCR Documentation

Nonconformance reports (NCR) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. Nonconformance report GEL-AS-MA-1964 was issued to document LCS recovery issues.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis and to list any report documents generated as a result of sample analysis or review. No additional comments were required for this SDG.

Review/Validation:

GEL requires all analytical data to be verified by a qualified data validator.

The following data validator verified the data presented in this SDG:

Reviewer: Rod Miller

Date: 12-11-00

General Engineering Laboratories
Form GEL-XXX
(Rev. 02/00)

1. NCR Report No.: GEL-AS-MA-1964
2. Page 1 of 1
3. Revision No.: 0

COMPANY-WIDE NONCONFORMANCE REPORT

COMPLETE EVERY ITEM
(See Instructions on Reverse Side)

UNCONTROLLED DOCUMENT

4. Mo. Day Yr. 11 | 20 | 00
5. Division: ☐ Industrial ☒ Federal ☐ Radiochemistry ☐ Bioassay ☐ Other
6. Type: Material ☐ Process ☒ Product ☐
7. Instrument Type: TRACE
8. Quality Criteria: ☒ SOP ☐ QAP or QAPJP ☐ Client Contract ☐ Purchase Document ☐ Drawing ☐ Specifications ☐ Others
9. Supplier/Client Name & Code: WSRC
10. Test/Method #: 6010
Matrix: SOIL
11. Numerical Reference Identification: (Batch Number, Sample Number, ID number) 50462

12. Specifications and Requirements Nonconformance Description:

Item No.	
①	LCS fails for Sb + Ti. The Recoveries are out side the laboratory spc limits, but within the manufactures Recovery criteria. The laboratory is Creating new spc limits to reflect the ~~manufactures~~ TW 11/20/00 actual recoveries the laboratory is getting for these elements.
②	Se fails high in the ICS-A, slightly. All Se results reported may be bias high.

14. NRG Disposition:

Item No.	
1+2	Report data as is

RECEIVED
NOV 29 2000

15. NRG's Printed Name & Signature: Tammy Woodie — Date: 11/20/00

List NRG Participants: 11/20/00

Management Review ☑ or Management Approval ☐

13. Originator's Printed Name & Signature: Tammy Woodie — Date: 11/20/00

Please review within 24 hours of receipt.

NCR Review & Disposition Review or Approval:
16. Quality Review: Nicole McCleary — Date: 11/29/00
17. Originator's Director/Group Leader — Date

Corrective Action Request and Approval:
18. CA Requested: Print Name and Sign — Date
19. Corrective Action Approval & Number — Date

Case Narrative for
WSRC006
SDG# 00542B
Metals Analysis by ICP
Mercury Analysis by CVAA

Sample Analysis:

The following samples were prepared and analyzed according to the methods referenced in the "Method/Analysis Information" section of this narrative:

Sample ID	Client ID
33976001	689-A-L
33976002	689-B-L
33976003	696-A-L
33976004	696-B-L
1000128711	Method Blank (MB) **ICP**-53556/53112
1000128714	Laboratory Control Sample (LCS)
1000128789	Method Blank (MB) **CVAA**-53353/53122
1000128791	Laboratory Control Sample (LCS)

Method/Analysis Information:

Analytical Batch #:	53556, 53353
Prep Batch #:	53112, 53122
Procedure:	ICP-TRACE 6010 SOIL& EPA 7471 SOIL
Analytical Method:	SW846 6010B & SW846 7470A
Prep Method:	SW846 3005A & SW846 7470A

System Configuration

The ICP analysis was performed on a Thermo Jarrell Ash 61E Trace axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Meinhardt nebulizer, cyclonic spray chamber, and yttrium internal standard. Operating conditions for the Trace ICP are set at a power level of 950 watts. The instrument has a peristaltic pump flow rate of 140 RPM (2.0 mL/min sample uptake rate), argon gas flows of 15 L/min and 0.5 L/min for the torch and auxiliary gases, and a pressure setting of 26 PSI for the nebulizer.

Mercury analysis was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-400) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 254 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9-mL/min and nitrogen carrier gas rate of 5 L/min.

Sample Preparation

All samples were prepared in accordance with the referenced SW-846 procedures.

Calibration Information:

Initial Calibration

Instrument calibrations are conducted using method and instrument manufacturer's specifications. All initial calibration requirements have been met for the analyses.

CRDL Requirements

All CRDL standards met the referenced advisory control limits.

Continuing Calibration Verification (CCV) Standards

All continuing calibration verification (CCV) standards bracketing analyses associated with this SDG met the established acceptance criteria.

Continuing Calibration Blanks (CCB) Requirements

All continuing calibration blanks (CCB) bracketing analyses associated with this SDG met the established acceptance criteria.

ICSA/ICSAB Requirements

All interference check standard (ICSA and ICSAB) elements associated with this SDG met the established acceptance criteria except a nominally high value for selenium in the ICSA analysis.

Quality Control (QC) Information:

Method Blank Acceptance

The preparation blanks analyzed with this SDG did not contain analytes of interest at concentrations greater than the reporting limits (RL).

LCS Recovery Statement

All LCS spike recoveries for this SDG were within the laboratory-derived statistical process control (SPC) limits.

MS/MSD Recovery Statement

Samples from two other WSRC SDGs ((ICP - 00579-1 (33924001) from SDG# 00579; CVAA - 00-CIF-1368 (33917001) from SDG# 00-CIF-1368)) were designated as the quality control samples for the ICP and CVAA batches. Each batch included a matrix spike (MS) and a matrix spike duplicate (MSD). The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS analyses met the recommended quality control acceptance criteria for percent recovery for all applicable analytes.

MS/MSD RPD Statement

The relative percent differences (RPD) between each element in the MS and MSD was within the established acceptance criteria.

Serial Dilution % Difference Statement

The serial dilution is used to assess interferences due to matrix suppression or enhancement. Raw element concentrations that are at least 50X the instrument detection limits (IDL) for the

ICP analyses are applicable for serial dilution assessment. All applicable analytes met the quality control acceptance criteria based on percent difference values (%D) of less than 10%, as per method requirements.

Technical Information:

Holding Time Specifications

All samples in this SDG met the specified holding time requirements.

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. During both the ICP and CVAA digestion steps, the initial sample volumes were reduced 10-fold due to the classification of the samples' matrix as miscellaneous liquids. A further 5X dilution was applied to all samples at the ICP instrument in order to report over range concentrations of potassium and sodium. No further dilutions were required for the samples associated with this SDG.

Miscellaneous Information:

NCR Documentation

Nonconformance reports (NCR) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. No nonconformance reports were issued for this SDG.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis and to list any report documents generated as a result of sample analysis or review. No additional comments were required for this SDG.

Review/Validation:

GEL requires all analytical data to be verified by a qualified data validator.

The following data validator verified the data presented in this SDG:

Reviewer: Rod Miller

Date: 12-2-00

General Chemistry Narrative
Westinghouse Savannah River Co (WSRC)
SDG 00542B

Method/Analysis Information

Procedure: **Oxalate**

Analytical Method: EPA 300.0

Analytical Batch Number: 53511

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
33976001	689-A-L
33976002	689-B-L
33976003	696-A-L
33976004	696-B-L
1000129868	MB for HBN 53511
1000129869	LCS for HBN 53511
1000129874	689-A-L(33976001DUP)
1000129875	689-A-L(33976001PS)

SOP Reference

Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, Inc. as Standard Operating Procedures (SOP). The data discussed in this narrative has been prepared and analyzed in accordance with GL-GC-E-086.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, Inc. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information:

The instrument used in this analysis was the following: Dionex DX300 Ion Chromatograph instrument equipped with a Dionex AS9-HC general purpose anion column

Initial Calibration

The instrument was properly calibrated.

Calibration Verification Information

All calibration verification standards were within the required limits.

Quality Control (QC) Information:

Blank Acceptance

The method and calibration check blanks associated with this data were within the required acceptance limits.

Laboratory Control Sample Recovery

The recovery for the laboratory control sample was within the required acceptance limits.

Quality Control

The following sample was designated for Quality Control for this sample group:
33976001

Sample Spike Recovery

The spike recovery for this sample set was outside of the required acceptance limits due to matrix interference.

Sample Duplicate Acceptance

The Relative Percent Difference between the sample and duplicate for this SDG was within the required acceptance limits.

Technical Information:

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

All samples from this sample group were analyzed within the required holding time for this method.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

No samples in this sample group required dilutions.

Miscellaneous Information:

Nonconformance Reports

No Nonconformance Reports (NCR) were required for any of the samples in this sample group for this analysis.

Method/Analysis Information

Procedure: **Ion Chromatography**

Analytical Method: EPA 300.0

Analytical Batch Number: 54404

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
33976001	689-A-L
33976002	689-B-L
33976003	696-A-L
33976004	696-B-L
1000132627	MB for HBN 54404
1000132628	LCS for HBN 54404
1000132629	689-A-L(33976001DUP)
1000132630	689-A-L(33976001PS)

SOP Reference

Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, Inc. as Standard Operating Procedures (SOP). The data discussed in this narrative has been prepared and analyzed in accordance with GL-GC-E-086.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, Inc. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information:

The instrument used in this analysis was the following: Dionex DX300 Ion Chromatograph instrument equipped with a Dionex AS9-HC general purpose anion column

Initial Calibration
The instrument was properly calibrated.

Calibration Verification Information
All calibration verification standards were within the required limits.

Quality Control (QC) Information:

Blank Acceptance
The method and calibration check blanks associated with this data were within the required acceptance limits..

Laboratory Control Sample Recovery
The recovery for the laboratory control sample was within the required acceptance limits.

Quality Control
The following sample was designated for Quality Control for this sample group:
33976001

Sample Spike Recovery
The spike recoveries for bromide, fluoride, and ortho-phosphate were outside of the required acceptance limits due to matrix interference. All other spike recoveries for this sample set were within the required acceptance limits.

Sample Duplicate Acceptance
The Relative Percent Difference between the sample and duplicate for this SDG was within the required acceptance limits.

Technical Information:

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following samples from this sample group were received by the lab outside of the method specified holding time for nitrate, nitrite, and ortho-phosphate:
33976001
33976002
33976003
33976004

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions

The following samples in this sample group were diluted due to matrix interference and/or high concentration for this analysis. See the Certificate(s) of Analysis for the individual dilution factors for the following sample(s):

1000132629
1000132630
33976001
33976002
33976003
33976004

Miscellaneous Information:

Nonconformance Reports

No Nonconformance Reports (NCR) were required for any of the samples in this sample group for this analysis.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:________________ **Date:** 12/04/00

GENERAL ENGINEERING LABORATORIES

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Certificate of Analysis

Company : Westinghouse Savannah Rivr Co.
Address : Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: December 12, 2000

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Client Sample ID: 689-A-L
Sample ID: 33976001
Matrix: MISC. LIQUID
Collect Date: 06-NOV-00
Receive Date: 10-NOV-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Liquid Feder											
Oxalate	U	0.00	0.113	0.600	mg/L	1	RWS	11/15/00	1232	53511	1
EPA300.0 Sulfate in Liquid											
Bromide	U	0.00	0.160	0.500	mg/L	10	RWS	11/21/00	0955	54404	2
Chloride		14.5	0.260	1.00	mg/L	10					
Fluoride		20.6	0.170	0.500	mg/L	10					
Nitrite		0.800	0.200	0.500	mg/L	10					
Ortho-phosphate		2.86	0.400	1.00	mg/L	10					
Nitrate		1770	10.0	25.0	mg/L	500	RWS	11/21/00	1135	54404	3
Sulfate		5290	39.5	100	mg/L	500					
Mercury Analysis Federal											
7470 Cold Vapor Hg Liquid											
Mercury	U	-1.31	0.600	2.00	ug/L	1	AW2	11/14/00	0955	53353	4
Metals Analysis-ICP Federal											
6010 ICP SCAN Metal Liquid Fed											
Aluminum, total recoverable		829	234	500	ug/L	1	JAB	11/25/00	1953	53556	5
Antimony, total recoverable	U	-1.03	34.3	100	ug/L	1					
Arsenic, total recoverable		221	25.7	50.0	ug/L	1					
Barium. total recoverable		452	7.48	50.0	ug/L	1					
Beryllium, total recoverable	U	0.440	4.74	50.0	ug/L	1					
Boron, total recoverable		8630	47.4	500	ug/L	1					
Cadmium, total recoverable	U	1.66	6.31	50.0	ug/L	1					
Calcium, total recoverable		601000	355	1000	ug/L	1					
Chromium, total recoverable		12300	10.6	50.0	ug/L	1					
Cobalt, total recoverable	J	47.0	6.27	50.0	ug/L	1					
Copper, total recoverable	J	45.2	18.4	50.0	ug/L	1					
Iron, total recoverable		1490	199	500	ug/L	1					
Lead, total recoverable	U	16.3	18.3	50.0	ug/L	1					
Magnesium, total recoverable		1140000	35.4	200	ug/L	1					
Manganese, total recoverable	J	68.7	11.5	100	ug/L	1					
Molybdenum		10500	10.5	100	ug/L	1					
Nickel, total recoverable		91.7	30.9	50.0	ug/L	1					
Selenium, total recoverable		1820	23.6	50.0	ug/L	1					
Silver, total recoverable	U	-2.17	5.29	50.0	ug/L	1					
Strontium		2590	4.69	50.0	ug/L	1					
Thallium, total recoverable	J	43.7	39.3	100	ug/L	1					
Tin, total recoverable	U	7.29	19.8	100	ug/L	1					

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Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: December 12, 2000

Page 2 of 2

Client Sample ID: 689-A-L
Sample ID: 33976001
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Metals Analysis-ICP Federal										
6010 ICP SCAN Metal Liquid Fed										
Titanium		60.6	4.59	50.0	ug/L	1				
Uranium	U	-90.5	119	500	ug/L	1				
Vanadium, total recoverable	J	25.6	8.90	50.0	ug/L	1				
Zinc, total recoverable	U	30.8	38.9	50.0	ug/L	1				
Potassium, total recoverable		1290000	820	5000	ug/L	5	JAB 11/26/00	1314	53556	6
Sodium, total recoverable		3210000	650	5000	ug/L	5				

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-TRACE SW846 3005A	KLD1	11/13/00	1315	53112
SW846 7470A	EPA 7470 Mercury Prep Liquid Federal	ARD	11/13/00	1845	53122

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	SW846 7470A
5	SW846 3005/6010B
6	SW846 3005/6010B

Notes:
The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Reviewed by

GENERAL ENGINEERING LABORATORIES

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Certificate of Analysis

Company :	Westinghouse Savannah Rivr Co.
Address :	Building 735-16A, Rm 5 P.O. Box 616 Aiken, SC 29802
Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: December 12, 2000

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Client Sample ID:	689-B-L	Project:	WSRC00497
Sample ID:	33976002	Client ID:	WSRC006
Matrix:	MISC. LIQUID		
Collect Date:	06-NOV-00		
Receive Date:	10-NOV-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography Federal										
EPA 300.0 Oxalate Liquid Feder										
Oxalate	U	0.00	0.113	0.600	mg/L	1	RWS 11/15/00	1333	53511	1
EPA300.0 Sulfate in Liquid										
Bromide	U	0.00	0.160	0.500	mg/L	10	RWS 11/21/00	1038	54404	2
Chloride		14.5	0.260	1.00	mg/L	10				
Fluoride		20.8	0.170	0.500	mg/L	10				
Nitrite		0.820	0.200	0.500	mg/L	10				
Ortho-phosphate		7.02	0.400	1.00	mg/L	10				
Nitrate		1650	10.0	25.0	mg/L	500	RWS 11/21/00	1247	54404	3
Sulfate		4880	39.5	100	mg/L	500				
Mercury Analysis Federal										
7470 Cold Vapor Hg Liquid										
Mercury	U	-1.73	0.600	2.00	ug/L	1	AW2 11/14/00	0957	53353	4
Metals Analysis-ICP Federal										
6010 ICP SCAN Metal Liquid Fed										
Aluminum, total recoverable	U	182	234	500	ug/L	1	JAB 11/25/00	1959	53556	5
Antimony, total recoverable	U	-6.67	34.3	100	ug/L	1				
Arsenic, total recoverable		195	25.7	50.0	ug/L	1				
Barium. total recoverable		398	7.48	50.0	ug/L	1				
Beryllium, total recoverable	U	0.0492	4.74	50.0	ug/L	1				
Boron, total recoverable		8580	47.4	500	ug/L	1				
Cadmium, total recoverable	U	0.565	6.31	50.0	ug/L	1				
Calcium, total recoverable		601000	355	1000	ug/L	1				
Chromium, total recoverable		12000	10.6	50.0	ug/L	1				
Cobalt, total recoverable	J	14.9	6.27	50.0	ug/L	1				
Copper, total recoverable	J	23.9	18.4	50.0	ug/L	1				
Iron, total recoverable		652	199	500	ug/L	1				
Lead, total recoverable	U	10.6	18.3	50.0	ug/L	1				
Magnesium, total recoverable		1100000	35.4	200	ug/L	1				
Manganese, total recoverable	U	-5.34	11.5	100	ug/L	1				
Molybdenum		10500	10.5	100	ug/L	1				
Nickel, total recoverable	J	40.8	30.9	50.0	ug/L	1				
Selenium, total recoverable		1740	23.6	50.0	ug/L	1				
Silver, total recoverable	U	-3.86	5.29	50.0	ug/L	1				
Strontium		2520	4.69	50.0	ug/L	1				
Thallium, total recoverable	J	58.3	39.3	100	ug/L	1				
Tin, total recoverable	U	3.59	19.8	100	ug/L	1				
Titanium	J	10.7	4.59	50.0	ug/L	1				

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Company : Westinghouse Savannah Rivr Co.
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Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: December 12, 2000

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Client Sample ID: 689-B-L
Sample ID: 33976002

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Metals Analysis-ICP Federal										
6010 ICP SCAN Metal Liquid Fed										
Uranium	U	-67.2	119	500	ug/L	1				
Vanadium, total recoverable	J	21.4	8.90	50.0	ug/L	1				
Zinc, total recoverable		62.8	38.9	50.0	ug/L	1				
Potassium, total recoverable		1250000	820	5000	ug/L	5	JAB 11/26/00	1320	53556	6
Sodium, total recoverable		3090000	650	5000	ug/L	5				

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-TRACE SW846 3005A	KLD1	11/13/00	1315	53112
SW846 7470A	EPA 7470 Mercury Prep Liquid Federal	ARD	11/13/00	1845	53122

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	SW846 7470A
5	SW846 3005/6010B
6	SW846 3005/6010B

Notes:
The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Reviewed by

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Certificate of Analysis

Company :	Westinghouse Savannah Rivr Co.
Address :	Building 735-16A, Rm 5 P.O. Box 616 Aiken, SC 29802
Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: December 12, 2000

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Client Sample ID:	696-A-L	Project:	WSRC00497
Sample ID:	33976003	Client ID:	WSRC006
Matrix:	MISC. LIQUID		
Collect Date:	06-NOV-00		
Receive Date:	10-NOV-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Liquid Feder											
Oxalate	U	0.00	0.113	0.600	mg/L	1	RWS	11/15/00	1353	53511	1
EPA300.0 Sulfate in Liquid											
Bromide	U	0.00	0.160	0.500	mg/L	10	RWS	11/21/00	1052	54404	2
Chloride		13.7	0.260	1.00	mg/L	10					
Fluoride		19.0	0.170	0.500	mg/L	10					
Nitrite	U	0.00	0.200	0.500	mg/L	10					
Ortho-phosphate		4.82	0.400	1.00	mg/L	10					
Nitrate		1650	10.0	25.0	mg/L	500	RWS	11/21/00	1302	54404	3
Sulfate		4700	39.5	100	mg/L	500					
Mercury Analysis Federal											
7470 Cold Vapor Hg Liquid											
Mercury	U	-0.972	0.600	2.00	ug/L	1	AW2	11/14/00	1003	53353	4
Metals Analysis-ICP Federal											
6010 ICP SCAN Metal Liquid Fed											
Aluminum, total recoverable	U	162	234	500	ug/L	1	JAB	11/25/00	2005	53556	5
Antimony, total recoverable	U	21.5	34.3	100	ug/L	1					
Arsenic, total recoverable		113	25.7	50.0	ug/L	1					
Barium. total recoverable		431	7.48	50.0	ug/L	1					
Beryllium, total recoverable	U	-0.0606	4.74	50.0	ug/L	1					
Boron, total recoverable		10200	47.4	500	ug/L	1					
Cadmium, total recoverable	U	1.32	6.31	50.0	ug/L	1					
Calcium, total recoverable		569000	355	1000	ug/L	1					
Chromium, total recoverable		12300	10.6	50.0	ug/L	1					
Cobalt, total recoverable	U	1.93	6.27	50.0	ug/L	1					
Copper, total recoverable	J	20.3	18.4	50.0	ug/L	1					
Iron, total recoverable	J	233	199	500	ug/L	1					
Lead, total recoverable	U	6.99	18.3	50.0	ug/L	1					
Magnesium, total recoverable		1150000	35.4	200	ug/L	1					
Manganese, total recoverable	U	-15.2	11.5	100	ug/L	1					
Molybdenum		20700	10.5	100	ug/L	1					
Nickel, total recoverable	U	27.0	30.9	50.0	ug/L	1					
Selenium, total recoverable		733	23.6	50.0	ug/L	1					
Silver, total recoverable	U	-1.84	5.29	50.0	ug/L	1					
Strontium		3000	4.69	50.0	ug/L	1					
Thallium, total recoverable	U	38.6	39.3	100	ug/L	1					
Tin, total recoverable	U	9.18	19.8	100	ug/L	1					
Titanium	J	21.3	4.59	50.0	ug/L	1					

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Certificate of Analysis

Company : Westinghouse Savannah Rivr Co.
Address : Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: December 12, 2000

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Client Sample ID: 696-A-L
Sample ID: 33976003
Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP Federal											
6010 ICP SCAN Metal Liquid Fed											
Uranium	U	-73.9	119	500	ug/L	1					
Vanadium, total recoverable		67.9	8.90	50.0	ug/L	1					
Zinc, total recoverable		83.4	38.9	50.0	ug/L	1					
Potassium, total recoverable		1210000	820	5000	ug/L	5	JAB	11/26/00	1325	53556	6
Sodium, total recoverable		2570000	650	5000	ug/L	5					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-TRACE SW846 3005A	KLD1	11/13/00	1315	53112
SW846 7470A	EPA 7470 Mercury Prep Liquid Federal	ARD	11/13/00	1845	53122

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	SW846 7470A
5	SW846 3005/6010B
6	SW846 3005/6010B

Notes:

The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Reviewed by

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Certificate of Analysis

Company : Westinghouse Savannah Rivr Co.
Address : Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: December 12, 2000

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Client Sample ID: 696-B-L
Sample ID: 33976004
Matrix: MISC. LIQUID
Collect Date: 06-NOV-00
Receive Date: 10-NOV-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate		Time	Batch	Method
Ion Chromatography Federal											
EPA 300.0 Oxalate Liquid Feder											
Oxalate	U	0.00	0.113	0.600	mg/L	1	RWS	11/15/00	1414	53511	1
EPA300.0 Sulfate in Liquid											
Bromide	U	0.00	0.160	0.500	mg/L	10	RWS	11/21/00	1107	54404	2
Chloride		14.0	0.260	1.00	mg/L	10					
Fluoride		20.0	0.170	0.500	mg/L	10					
Nitrite	U	0.00	0.200	0.500	mg/L	10					
Ortho-phosphate		10.3	0.400	1.00	mg/L	10					
Nitrate		1560	10.0	25.0	mg/L	500	RWS	11/21/00	1316	54404	3
Sulfate		4370	39.5	100	mg/L	500					
Mercury Analysis Federal											
7470 Cold Vapor Hg Liquid											
Mercury	U	-1.69	0.600	2.00	ug/L	1	AW2	11/14/00	1005	53353	4
Metals Analysis-ICP Federal											
6010 ICP SCAN Metal Liquid Fed											
Aluminum, total recoverable	U	234	234	500	ug/L	1	JAB	11/25/00	2011	53556	5
Antimony, total recoverable	U	4.71	34.3	100	ug/L	1					
Arsenic, total recoverable		147	25.7	50.0	ug/L	1					
Barium. total recoverable		392	7.48	50.0	ug/L	1					
Beryllium, total recoverable	U	0.488	4.74	50.0	ug/L	1					
Boron, total recoverable		10400	47.4	500	ug/L	1					
Cadmium, total recoverable	U	0.852	6.31	50.0	ug/L	1					
Calcium, total recoverable		554000	355	1000	ug/L	1					
Chromium, total recoverable		12300	10.6	50.0	ug/L	1					
Cobalt, total recoverable	J	17.4	6.27	50.0	ug/L	1					
Copper, total recoverable	J	30.4	18.4	50.0	ug/L	1					
Iron, total recoverable		707	199	500	ug/L	1					
Lead, total recoverable	U	15.5	18.3	50.0	ug/L	1					
Magnesium, total recoverable		1150000	35.4	200	ug/L	1					
Manganese, total recoverable	J	42.6	11.5	100	ug/L	1					
Molybdenum		20700	10.5	100	ug/L	1					
Nickel, total recoverable		198	30.9	50.0	ug/L	1					
Selenium, total recoverable		747	23.6	50.0	ug/L	1					
Silver, total recoverable	U	-3.45	5.29	50.0	ug/L	1					
Strontium		2950	4.69	50.0	ug/L	1					
Thallium, total recoverable	J	60.5	39.3	100	ug/L	1					
Tin, total recoverable	U	2.85	19.8	100	ug/L	1					
Titanium	J	8.73	4.59	50.0	ug/L	1					

GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Westinghouse Savannah Rivr Co.
Address : Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802
Contact: Ms. Janet Crawford
Project: HazWaste Contract

Report Date: December 12, 2000

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Client Sample ID: 696-B-L
Sample ID: 33976004

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP Federal											
6010 ICP SCAN Metal Liquid Fed											
Uranium	U	-39.1	119	500	ug/L	1					
Vanadium, total recoverable		76.6	8.90	50.0	ug/L	1					
Zinc, total recoverable		857	38.9	50.0	ug/L	1					
Potassium, total recoverable		1210000	820	5000	ug/L	5	JAB	11/26/00	1331	53556	6
Sodium, total recoverable		2580000	650	5000	ug/L	5					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-TRACE SW846 3005A	KLD1	11/13/00	1315	53112
SW846 7470A	EPA 7470 Mercury Prep Liquid Federal	ARD	11/13/00	1845	53122

The following Analytical Methods were performed

Method	Description
1	EPA 300.0
2	EPA 300.0
3	EPA 300.0
4	SW846 7470A
5	SW846 3005/6010B
6	SW846 3005/6010B

Notes:
The Qualifiers in this report are defined as follows :

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Lee M. Heath at 843-556-8171 Ext. 4433.

Reviewed by

QC Summary

Report Date: December 12, 2000
Page 1 of 7

Client : Westinghouse Savannah Rivr Co.
Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802

Contact: Ms. Janet Crawford

Workorder: 33976

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography Federal												
Batch 53511												
QC1000129874 33976001 DUP												
Oxalate		U	0.00	U	0.00	mg/L	N/A ^		(+/-0.600)	RWS	11/15/00	12:52
QC1000129869 LCS												
Oxalate	9.00				8.46	mg/L		94	(90%-110%)		11/15/00	14:54
QC1000129868 MB												
Oxalate					0.00	mg/L					11/15/00	15:15
QC1000129875 33976001 PS												
Oxalate	9.00	U	0.00	U	0.00	mg/L		0*	(80%-120%)		11/15/00	13:13
Batch 54404												
QC1000132629 33976001 DUP												
Bromide		U	0.00	U	0.00	mg/L	N/A ^		(+/-0.500)	RWS	11/21/00	10:09
Chloride			14.5		14.6	mg/L	1		(0%-13%)			
Fluoride			20.6		20.5	mg/L	0		(0%-15%)			
Nitrate			1770		1690	mg/L	4		(0%-13%)		11/21/00	11:50
Nitrite			0.800	U	0.00	mg/L	N/A ^		(+/-0.500)		11/21/00	10:09
Ortho-phosphate			2.86		3.37	mg/L	16 ^		(+/-1.00)			
Sulfate			5290		5070	mg/L	4		(0%-15%)		11/21/00	11:50
QC1000132628 LCS												
Bromide	10.0				9.96	mg/L		100	(90%-110%)		11/21/00	12:18
Chloride	10.0				9.57	mg/L		96	(90%-110%)			
Fluoride	10.0				10.4	mg/L		104	(90%-110%)			
Nitrate	5.00				5.09	mg/L		102	(90%-110%)			
Nitrite	10.0				10.3	mg/L		103	(90%-110%)			
Ortho-phosphate	10.0				10.1	mg/L		101	(90%-110%)			
Sulfate	20.0				19.6	mg/L		98	(90%-110%)			
QC1000132627 MB												
Bromide				U	0.00	mg/L					11/21/00	12:33
Chloride				U	0.00	mg/L						
Fluoride				U	0.00	mg/L						
Nitrate				U	0.00	mg/L						
Nitrite				U	0.00	mg/L						
Ortho-phosphate				U	0.00	mg/L						
Sulfate				U	0.00	mg/L						
QC1000132630 33976001 PS												
Bromide	10.0	U	0.00		12.3	mg/L		123*	(80%-120%)		11/21/00	10:23
Chloride	10.0		1.45		12.1	mg/L		107	(80%-120%)			
Fluoride	10.0		2.06		14.9	mg/L		129*	(80%-120%)			
Nitrate	5.00		3.53		9.10	mg/L		111	(80%-120%)		11/21/00	12:04
Nitrite	10.0		0.080		10.9	mg/L		108	(80%-120%)		11/21/00	10:23
Ortho-phosphate	10.0		0.286		34.9	mg/L		346*	(80%-120%)			
Sulfate	20.0		10.6		31.9	mg/L		107	(80%-120%)		11/21/00	12:04
Mercury Analysis Federal												
Batch 53353												

QC Summary

Workorder: 33976

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Mercury Analysis Federal												
Batch 53353												
QC1000128792 33905007 DUP												
Mercury		U	-0.0552	U	-0.158	ug/L	N/A ^		(+/-1.00)	AW2	11/14/00	10:11
QC1000128791 LCS												
Mercury	20.0				20.4	ug/L		102	(82%-124%)		11/14/00	09:40
QC1000128789 MB												
Mercury				U	-0.839	ug/L					11/14/00	09:38
QC1000128790 33905007 MS												
Mercury	2.00	U	-0.0552		2.05	ug/L		103	(74%-132%)		11/14/00	10:09
QC1000128793 33917001 MS												
Mercury	20.0	U	-0.99		23.5	ug/L		117	(74%-132%)		11/14/00	09:44
QC1000128794 33917001 MSD												
Mercury	20.0	U	-0.99		20.4	ug/L	14	102	(0%-16%)		11/14/00	09:46
Metals Analysis-ICP Federal												
Batch 53556												
QC1000128714 LCS												
Aluminum, total recoverable	5000				5390	ug/L		108	(83%-121%)	JAB	11/25/00	18:21
Antimony, total recoverable	500				529	ug/L		106	(80%-116%)			
Arsenic, total recoverable	500				508	ug/L		102	(80%-117%)			
Barium. total recoverable	500				545	ug/L		109	(87%-116%)			
Beryllium, total recoverable	500				499	ug/L		100	(89%-116%)			
Boron, total recoverable	500				507	ug/L		101	(88%-114%)			
Cadmium, total recoverable	500				495	ug/L		99	(88%-117%)			
Calcium, total recoverable	5000				5050	ug/L		101	(88%-118%)			
Chromium, total recoverable	500				515	ug/L		103	(88%-117%)			
Cobalt, total recoverable	500				509	ug/L		102	(89%-116%)			
Copper, total recoverable	500				533	ug/L		107	(87%-115%)			
Iron, total recoverable	5000				5170	ug/L		103	(84%-123%)			
Lead, total recoverable	500				506	ug/L		101	(89%-117%)			
Magnesium, total recoverable	5000				5170	ug/L		103	(87%-115%)			
Manganese, total recoverable	500				507	ug/L		101	(88%-115%)			
Molybdenum	500				529	ug/L		106	(80%-120%)			
Nickel, total recoverable	500				507	ug/L		101	(88%-119%)			
Potassium, total recoverable	5000				5200	ug/L		104	(85%-114%)			
Selenium, total recoverable	500				499	ug/L		100	(87%-114%)			
Silver, total recoverable	500				505	ug/L		101	(80%-119%)			
Sodium, total recoverable	5000				5490	ug/L		110	(89%-118%)			
Strontium	500				530	ug/L		106	(80%-120%)			
Thallium, total recoverable	500				509	ug/L		102	(90%-118%)			
Tin, total recoverable	500				521	ug/L		104	(80%-120%)			
Titanium	500				519	ug/L		104	(80%-120%)			
Uranium	500				538	ug/L		108	(80%-120%)			
Vanadium, total recoverable	500				521	ug/L		104	(89%-115%)			
Zinc, total recoverable	500				506	ug/L		101	(89%-117%)			
QC1000128711 MB												
Aluminum, total recoverable				U	4.90	ug/L					11/25/00	18:15
Antimony, total recoverable				U	-0.0021	ug/L						
Arsenic, total recoverable				U	-0.269	ug/L						
Barium. total recoverable				U	0.364	ug/L						

QC Summary

Workorder: 33976

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP Federal										
Batch 53556										
Beryllium, total recoverable			U	0.0418	ug/L					
Boron, total recoverable			U	1.72	ug/L					
Cadmium, total recoverable			U	0.0654	ug/L					
Calcium, total recoverable			U	19.6	ug/L					
Chromium, total recoverable			U	-0.0677	ug/L					
Cobalt, total recoverable			U	-0.258	ug/L					
Copper, total recoverable			U	1.48	ug/L					
Iron, total recoverable			J	25.8	ug/L					
Lead, total recoverable			U	-0.164	ug/L					
Magnesium, total recoverable			J	5.62	ug/L					
Manganese, total recoverable			U	0.702	ug/L					
Molybdenum			U	0.0626	ug/L					
Nickel, total recoverable			U	0.619	ug/L					
Potassium, total recoverable			U	3.74	ug/L					
Selenium, total recoverable			U	-0.367	ug/L					
Silver, total recoverable			U	-0.336	ug/L					
Sodium, total recoverable			J	43.0	ug/L					
Strontium			U	0.0827	ug/L					
Thallium, total recoverable			U	-0.247	ug/L					
Tin, total recoverable			U	1.44	ug/L					
Titanium			U	0.0592	ug/L					
Uranium			U	-14.4	ug/L					
Vanadium, total recoverable			U	-0.00498	ug/L					
Zinc, total recoverable			U	1.99	ug/L					
QC1000128712 33924001 MS										
Aluminum, total recoverable	50000			54200	ug/L		108	(88%-119%)		11/25/00 18:38
Antimony, total recoverable	5000			5450	ug/L		108	(76%-124%)		
Arsenic, total recoverable	5000	U -0.182		5210	ug/L		104	(85%-118%)		
Barium. total recoverable	5000	U 2.75		5390	ug/L		108	(90%-113%)		
Beryllium, total recoverable	5000			4950	ug/L		99	(88%-116%)		
Boron, total recoverable	5000			15200	ug/L		104	(70%-130%)		
Cadmium, total recoverable	5000	1690		6710	ug/L		100	(89%-116%)		
Calcium, total recoverable	50000			52600	ug/L		100	(83%-125%)		
Chromium, total recoverable	5000	3330		8380	ug/L		101	(88%-112%)		
Cobalt, total recoverable	5000			5160	ug/L		103	(89%-115%)		
Copper, total recoverable	5000			5940	ug/L		109	(88%-117%)		
Iron, total recoverable	50000			52200	ug/L		103	(91%-117%)		
Lead, total recoverable	5000	679		5730	ug/L		101	(85%-118%)		
Magnesium, total recoverable	50000			51400	ug/L		101	(61%-138%)		
Manganese, total recoverable	5000			10700	ug/L		100	(85%-115%)		
Molybdenum	5000			5760	ug/L		107	(70%-130%)		
Nickel, total recoverable	5000			9690	ug/L		101	(90%-118%)		
Potassium, total recoverable	50000			124000	ug/L		131*	(81%-118%)		
Selenium, total recoverable	5000	U 2.95		4990	ug/L		100	(84%-112%)		
Silver, total recoverable	5000	J 37.6		5270	ug/L		105	(89%-120%)		
Sodium, total recoverable	50000			12200000	ug/L		-319 *	(75%-130%)		
Strontium	5000			17300	ug/L		112	(70%-130%)		
Thallium, total recoverable	5000			5100	ug/L		101	(87%-115%)		

QC Summary

Workorder: 33976

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 53556											
Tin, total recoverable	5000			5410	ug/L		108	(70%-130%)			
Titanium	5000			5130	ug/L		103	(70%-130%)			
Uranium	5000			5280	ug/L		106	(70%-130%)			
Vanadium, total recoverable	5000			5220	ug/L		104	(89%-114%)			
Zinc, total recoverable	5000			7860	ug/L		102	(91%-114%)			
QC1000128716 33868001 MS											
Aluminum, total recoverable	5000	340		5960	ug/L		112	(88%-119%)		11/25/00	19:01
Antimony, total recoverable	500			531	ug/L		105	(76%-124%)			
Arsenic, total recoverable	500			505	ug/L		101	(85%-118%)			
Barium. total recoverable	500			554	ug/L		108	(90%-113%)			
Beryllium, total recoverable	500			502	ug/L		100	(88%-116%)			
Boron, total recoverable	500			548	ug/L		100	(70%-130%)			
Cadmium, total recoverable	500			497	ug/L		99	(89%-116%)			
Calcium, total recoverable	5000			19500	ug/L		109	(83%-125%)			
Chromium, total recoverable	500			517	ug/L		103	(88%-112%)			
Cobalt, total recoverable	500			511	ug/L		102	(89%-115%)			
Copper, total recoverable	500	7.10		538	ug/L		106	(88%-117%)			
Iron, total recoverable	5000	352		5620	ug/L		105	(91%-117%)			
Lead, total recoverable	500	2.24	J	513	ug/L		102	(85%-118%)			
Magnesium, total recoverable	5000			6710	ug/L		106	(61%-138%)			
Manganese, total recoverable	500			528	ug/L		102	(85%-115%)			
Molybdenum	500			535	ug/L		107	(70%-130%)			
Nickel, total recoverable	500			510	ug/L		102	(90%-118%)			
Potassium, total recoverable	5000			6810	ug/L		104	(81%-118%)			
Selenium, total recoverable	500			497	ug/L		99	(84%-112%)			
Silver, total recoverable	500			501	ug/L		100	(89%-120%)			
Sodium, total recoverable	5000			5620	ug/L		97	(75%-130%)			
Strontium	500			593	ug/L		104	(70%-130%)			
Thallium, total recoverable	500			509	ug/L		102	(87%-115%)			
Tin, total recoverable	500			529	ug/L		106	(70%-130%)			
Titanium	500			521	ug/L		103	(70%-130%)			
Uranium	500			538	ug/L		107	(70%-130%)			
Vanadium, total recoverable	500			528	ug/L		105	(89%-114%)			
Zinc, total recoverable	500	53.7		561	ug/L		102	(91%-114%)			
QC1000128713 33924001 MSD											
Aluminum, total recoverable	50000			55500	ug/L	2	111	(0%-11%)		11/25/00	18:44
Antimony, total recoverable	5000			5590	ug/L	2	111	(0%-7%)			
Arsenic, total recoverable	5000	-0.182	U	5350	ug/L	3	107	(0%-7%)			
Barium. total recoverable	5000	2.75	U	5530	ug/L	3	110	(0%-6%)			
Beryllium, total recoverable	5000			5090	ug/L	3	102	(0%-7%)			
Boron, total recoverable	5000			15500	ug/L	2	110	(0%-20%)			
Cadmium, total recoverable	5000	1690		6850	ug/L	2	103	(0%-7%)			
Calcium, total recoverable	50000			54400	ug/L	3	103	(0%-11%)			
Chromium, total recoverable	5000	3330		8580	ug/L	2	105	(0%-7%)			
Cobalt, total recoverable	5000			5290	ug/L	2	105	(0%-6%)			
Copper, total recoverable	5000			6110	ug/L	3	113	(0%-6%)			
Iron, total recoverable	50000			53700	ug/L	3	106	(0%-12%)			
Lead, total recoverable	5000	679		5880	ug/L	3	104	(0%-7%)			

QC Summary

Workorder: 33976

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal												
Batch 53556												
Magnesium, total recoverable	50000				52900	ug/L	3	104	(0%-14%)			
Manganese, total recoverable	5000				10900	ug/L	2	104	(0%-9%)			
Molybdenum	5000				5950	ug/L	3	111	(0%-20%)			
Nickel, total recoverable	5000				9880	ug/L	2	105	(0%-6%)			
Potassium, total recoverable	50000				126000	ug/L	2	135	(0%-9%)			
Selenium, total recoverable	5000	U	2.95		5160	ug/L	3	103	(0%-7%)			
Silver, total recoverable	5000	J	37.6		5410	ug/L	3	108	(0%-7%)			
Sodium, total recoverable	50000				12300000	ug/L	1	-114	(0%-20%)			
Strontium	5000				17300	ug/L	0	113	(0%-20%)			
Thallium, total recoverable	5000				5280	ug/L	4	105	(0%-8%)			
Tin, total recoverable	5000				5550	ug/L	3	111	(0%-20%)			
Titanium	5000				5300	ug/L	3	106	(0%-20%)			
Uranium	5000				5420	ug/L	3	108	(0%-20%)			
Vanadium, total recoverable	5000				5370	ug/L	3	107	(0%-7%)			
Zinc, total recoverable	5000				8050	ug/L	2	106	(0%-8%)			
QC1000128717 33868001 MSD												
Aluminum, total recoverable	5000		340		5660	ug/L	5	106	(0%-11%)		11/25/00	19:07
Antimony, total recoverable	500				515	ug/L	3	102	(0%-7%)			
Arsenic, total recoverable	500				495	ug/L	2	99	(0%-7%)			
Barium. total recoverable	500				535	ug/L	3	104	(0%-6%)			
Beryllium, total recoverable	500				484	ug/L	3	97	(0%-7%)			
Boron, total recoverable	500				539	ug/L	2	98	(0%-20%)			
Cadmium, total recoverable	500				486	ug/L	2	97	(0%-7%)			
Calcium, total recoverable	5000				18900	ug/L	3	95	(0%-11%)			
Chromium, total recoverable	500				494	ug/L	4	99	(0%-7%)			
Cobalt, total recoverable	500				493	ug/L	4	99	(0%-6%)			
Copper, total recoverable	500		7.10		517	ug/L	4	102	(0%-6%)			
Iron, total recoverable	5000		352		5320	ug/L	5	99	(0%-12%)			
Lead, total recoverable	500	J	2.24		504	ug/L	2	100	(0%-7%)			
Magnesium, total recoverable	5000				6470	ug/L	4	101	(0%-14%)			
Manganese, total recoverable	500				508	ug/L	4	98	(0%-9%)			
Molybdenum	500				518	ug/L	3	103	(0%-20%)			
Nickel, total recoverable	500				492	ug/L	4	98	(0%-6%)			
Potassium, total recoverable	5000				6720	ug/L	1	102	(0%-9%)			
Selenium, total recoverable	500				490	ug/L	2	98	(0%-7%)			
Silver, total recoverable	500				499	ug/L	0	100	(0%-7%)			
Sodium, total recoverable	5000				5550	ug/L	1	95	(0%-20%)			
Strontium	500				573	ug/L	4	100	(0%-20%)			
Thallium, total recoverable	500				504	ug/L	1	101	(0%-8%)			
Tin, total recoverable	500				511	ug/L	4	102	(0%-20%)			
Titanium	500				502	ug/L	4	99	(0%-20%)			
Uranium	500				514	ug/L	4	102	(0%-20%)			
Vanadium, total recoverable	500				507	ug/L	4	101	(0%-7%)			
Zinc, total recoverable	500		53.7		542	ug/L	4	98	(0%-8%)			
QC1000128715 33924001 SDILT												
Aluminum, total recoverable				U	-2.81	ug/L	N/A				11/25/00	18:32
Antimony, total recoverable				U	0.511	ug/L	N/A					
Arsenic, total recoverable		U	-0.0182	U	-0.926	ug/L	-25400					

QC Summary

Workorder: 33976

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 53556											
Barium. total recoverable	U	0.275	U	0.0581	ug/L	5.56					
Beryllium, total recoverable			U	0.0227	ug/L	N/A					
Boron, total recoverable				199	ug/L	N/A					
Cadmium, total recoverable		169		33.4	ug/L	1.15					
Calcium, total recoverable			J	52.8	ug/L	N/A					
Chromium, total recoverable		333		65.7	ug/L	1.26					
Cobalt, total recoverable			U	0.269	ug/L	N/A					
Copper, total recoverable				39.2	ug/L	N/A					
Iron, total recoverable			U	11.8	ug/L	N/A					
Lead, total recoverable		67.9		12.9	ug/L	4.92					
Magnesium, total recoverable			J	14.1	ug/L	N/A					
Manganese, total recoverable				113	ug/L	N/A					
Molybdenum			J	8.09	ug/L	N/A					
Nickel, total recoverable				146	ug/L	N/A					
Potassium, total recoverable				987	ug/L	N/A					
Selenium, total recoverable	U	0.295	U	0.0856	ug/L	45.2					
Silver, total recoverable	J	3.76	J	0.598	ug/L	20.4					
Sodium, total recoverable				232000	ug/L	N/A					
Strontium				236	ug/L	N/A					
Thallium, total recoverable			U	1.58	ug/L	N/A					
Tin, total recoverable			U	0.762	ug/L	N/A					
Titanium			U	0.0532	ug/L	N/A					
Uranium			U	-16.9	ug/L	N/A					
Vanadium, total recoverable			U	-0.0263	ug/L	N/A					
Zinc, total recoverable				54.5	ug/L	N/A					
QC1000128718 33868001 SDILT											
Aluminum, total recoverable		340		63.8	ug/L	6.07				11/25/00	18:55
Antimony, total recoverable			U	-0.252	ug/L	N/A					
Arsenic, total recoverable			U	-1.22	ug/L	N/A					
Barium. total recoverable			J	3.01	ug/L	N/A					
Beryllium, total recoverable			U	0.030	ug/L	N/A					
Boron, total recoverable			J	12.8	ug/L	N/A					
Cadmium, total recoverable			U	0.184	ug/L	N/A					
Calcium, total recoverable				2790	ug/L	N/A					
Chromium, total recoverable			U	0.170	ug/L	N/A					
Cobalt, total recoverable			U	0.118	ug/L	N/A					
Copper, total recoverable		7.10	J	2.12	ug/L	49					
Iron, total recoverable		352		68.2	ug/L	3.11					
Lead, total recoverable	J	2.24	U	0.772	ug/L	72.3					
Magnesium, total recoverable				282	ug/L	N/A					
Manganese, total recoverable			J	4.48	ug/L	N/A					
Molybdenum			U	0.365	ug/L	N/A					
Nickel, total recoverable			U	0.0497	ug/L	N/A					
Potassium, total recoverable				321	ug/L	N/A					
Selenium, total recoverable			U	0.583	ug/L	N/A					
Silver, total recoverable			U	-0.278	ug/L	N/A					
Sodium, total recoverable				220	ug/L	N/A					
Strontium				14.0	ug/L	N/A					

QC Summary

Workorder: 33976

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 53556											
Thallium, total recoverable			U	-0.065	ug/L	N/A					
Tin, total recoverable			U	1.06	ug/L	N/A					
Titanium			J	1.27	ug/L	N/A					
Uranium			U	0.112	ug/L	N/A					
Vanadium, total recoverable			U	0.304	ug/L	N/A					
Zinc, total recoverable		53.7		10.5	ug/L	1.86					

Notes:
The Qualifiers in this report are defined as follows:

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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Contact:	Ms. Janet Crawford
Project:	HazWaste Contract

Report Date: December 12, 2000

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Client Sample ID:	689-A-S	Project:	WSRC00497
Sample ID:	33977001	Client ID:	WSRC006
Matrix:	SOLID		
Collect Date:	06-NOV-00		
Receive Date:	10-NOV-00		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		67.2	4.17	9.16	ug/kg	1	AW2	11/15/00	1424	53359	1
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		17800000	770	5000	ug/kg	2	RMJ	11/30/00	1858	53659	2
Antimony, total recoverable		2480	163	1000	ug/kg	2					
Arsenic, total recoverable		1900000	261	500	ug/kg	2					
Barium. total recoverable		183000	92.9	500	ug/kg	2					
Beryllium, total recoverable		24900	62.2	500	ug/kg	2					
Boron, total recoverable		226000	820	5000	ug/kg	2					
Cadmium, total recoverable		6590	76.3	500	ug/kg	2					
Calcium, total recoverable		15600000	2400	10000	ug/kg	2					
Chromium, total recoverable		261000	129	500	ug/kg	2					
Cobalt, total recoverable		2740000	111	500	ug/kg	2					
Copper, total recoverable		1530000	200	500	ug/kg	2					
Lead, total recoverable		939000	198	500	ug/kg	2					
Manganese, total recoverable		5210000	177	1000	ug/kg	2					
Molybdenum		381000	170	1000	ug/kg	2					
Nickel, total recoverable		3950000	144	500	ug/kg	2					
Potassium, total recoverable		1650000	4590	10000	ug/kg	2					
Selenium, total recoverable		46300	291	500	ug/kg	2					
Silver, total recoverable		1280	201	500	ug/kg	2					
Sodium, total recoverable		2180000	611	10000	ug/kg	2					
Strontium		54200	52.1	500	ug/kg	2					
Thallium, total recoverable		7050	400	1000	ug/kg	2					
Tin, total recoverable		11100	289	1000	ug/kg	2					
Titanium		187000	67.2	500	ug/kg	2					
Uranium		778000	1760	5000	ug/kg	2					
Vanadium, total recoverable		404000	148	500	ug/kg	2					
Iron, total recoverable		131000000	20000	125000	ug/kg	50	RMJ	11/30/00	2055	53659	3
Magnesium, total recoverable		58700000	9200	50000	ug/kg	50					
Zinc, total recoverable		1230000	6880	12500	ug/kg	50					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	846 3050BS PREP	KLD1	11/14/00	1545	53116
		ARD	11/13/00	2045	53124

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Client Sample ID: 689-A-S
Sample ID: 33977001
Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
SW846 7471A	EPA 7471 Mercury Prep Soil									

The following Analytical Methods were performed

Method	Description
1	SW846 7471A
2	SW846 3005/6010B
3	SW846 3005/6010B

Notes:

The Qualifiers in this report are defined as follows :

J EPA Functional Guideline Code:Result > MDA + 2 * Error
J EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Project: HazWaste Contract

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Client Sample ID: 689-B-S
Sample ID: 33977002
Matrix: SOLID
Collect Date: 06-NOV-00
Receive Date: 10-NOV-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		70.2	4.47	9.82	ug/kg	1	AW2	11/15/00	1435	53359	1
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		18000000	740	4810	ug/kg	2	RMJ	11/30/00	1920	53659	2
Antimony, total recoverable		2480	157	962	ug/kg	2					
Arsenic, total recoverable		1880000	251	481	ug/kg	2					
Barium. total recoverable		183000	89.3	481	ug/kg	2					
Beryllium, total recoverable		24800	59.8	481	ug/kg	2					
Boron, total recoverable		221000	788	4810	ug/kg	2					
Cadmium, total recoverable		6670	73.4	481	ug/kg	2					
Calcium, total recoverable		15000000	2310	9620	ug/kg	2					
Chromium, total recoverable		260000	124	481	ug/kg	2					
Cobalt, total recoverable		2680000	107	481	ug/kg	2					
Copper, total recoverable		1510000	192	481	ug/kg	2					
Lead, total recoverable		927000	190	481	ug/kg	2					
Manganese, total recoverable		5070000	170	962	ug/kg	2					
Molybdenum		380000	163	962	ug/kg	2					
Nickel, total recoverable		3920000	138	481	ug/kg	2					
Potassium, total recoverable		1690000	4410	9620	ug/kg	2					
Selenium, total recoverable		45100	280	481	ug/kg	2					
Silver, total recoverable		1300	193	481	ug/kg	2					
Sodium, total recoverable		2160000	588	9620	ug/kg	2					
Strontium		53800	50.1	481	ug/kg	2					
Thallium, total recoverable		5670	385	962	ug/kg	2					
Tin, total recoverable		11000	278	962	ug/kg	2					
Titanium		188000	64.6	481	ug/kg	2					
Uranium		776000	1690	4810	ug/kg	2					
Vanadium, total recoverable		407000	142	481	ug/kg	2					
Iron, total recoverable		137000000	19200	120000	ug/kg	50	RMJ	11/30/00	2117	53659	3
Magnesium, total recoverable		62100000	8850	48100	ug/kg	50					
Zinc, total recoverable		1280000	6610	12000	ug/kg	50					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	846 3050BS PREP	KLD1	11/14/00	1545	53116
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	11/13/00	2045	53124

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Client Sample ID: 689-B-S
Sample ID: 33977002

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description
1	SW846 7471A
2	SW846 3005/6010B
3	SW846 3005/6010B

Notes:
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R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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Client Sample ID: 696-A-S
Sample ID: 33977003
Matrix: SOLID
Collect Date: 06-NOV-00
Receive Date: 10-NOV-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate		Time	Batch	Method
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		18.9	4.25	9.35	ug/kg	1	AW2	11/15/00	1437	53359	1
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		17800000	762	4950	ug/kg	2	RMJ	11/30/00	1926	53659	2
Antimony, total recoverable		1810	161	990	ug/kg	2					
Arsenic, total recoverable		1340000	258	495	ug/kg	2					
Barium. total recoverable		111000	92.0	495	ug/kg	2					
Beryllium, total recoverable		65600	61.6	495	ug/kg	2					
Boron, total recoverable		228000	812	4950	ug/kg	2					
Cadmium, total recoverable		27700	75.5	495	ug/kg	2					
Calcium, total recoverable		11300000	2380	9900	ug/kg	2					
Chromium, total recoverable		245000	128	495	ug/kg	2					
Cobalt, total recoverable		1320000	110	495	ug/kg	2					
Copper, total recoverable		1170000	198	495	ug/kg	2					
Lead, total recoverable		530000	196	495	ug/kg	2					
Manganese, total recoverable		5010000	175	990	ug/kg	2					
Molybdenum		535000	168	990	ug/kg	2					
Nickel, total recoverable		1770000	143	495	ug/kg	2					
Potassium, total recoverable		1550000	4540	9900	ug/kg	2					
Selenium, total recoverable		25100	288	495	ug/kg	2					
Silver, total recoverable		1010	199	495	ug/kg	2					
Sodium, total recoverable		1820000	605	9900	ug/kg	2					
Strontium		58400	51.6	495	ug/kg	2					
Thallium, total recoverable		5990	396	990	ug/kg	2					
Tin, total recoverable		9750	286	990	ug/kg	2					
Titanium		239000	66.5	495	ug/kg	2					
Uranium		571000	1740	4950	ug/kg	2					
Vanadium, total recoverable		794000	147	495	ug/kg	2					
Iron, total recoverable		130000000	19800	124000	ug/kg	50	RMJ	11/30/00	2123	53659	3
Magnesium, total recoverable		64300000	9110	49500	ug/kg	50					
Zinc, total recoverable		1430000	6810	12400	ug/kg	50					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	846 3050BS PREP	KLD1	11/14/00	1545	53116
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	11/13/00	2045	53124

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Client Sample ID: 696-A-S
Sample ID: 33977003
Proiect: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description
1	SW846 7471A
2	SW846 3005/6010B
3	SW846 3005/6010B

Notes:
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R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result . .
U EPA Functional Guideline Code:Result < MDL

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Report Date: December 12, 2000

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Client Sample ID: 696-B-S
Sample ID: 33977004
Matrix: SOLID
Collect Date: 06-NOV-00
Receive Date: 10-NOV-00
Collector: Client

Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis Federal											
7471 Cold Vapor Hg in Solid											
Mercury		38.0	4.45	9.77	ug/kg	1	AW2	11/15/00	1439	53359	1
Metals Analysis-ICP Federal											
6010 ICP SCAN Metals Soil											
Aluminum, total recoverable		17300000	748	4850	ug/kg	2	RMJ	11/30/00	1931	53659	2
Antimony, total recoverable		1290	158	971	ug/kg	2					
Arsenic, total recoverable		1320000	253	485	ug/kg	2					
Barium. total recoverable		110000	90.2	485	ug/kg	2					
Beryllium, total recoverable		64800	60.4	485	ug/kg	2					
Boron, total recoverable		228000	796	4850	ug/kg	2					
Cadmium, total recoverable		28000	74.1	485	ug/kg	2					
Calcium, total recoverable		11400000	2330	9710	ug/kg	2					
Chromium, total recoverable		229000	125	485	ug/kg	2					
Cobalt, total recoverable		1300000	108	485	ug/kg	2					
Copper, total recoverable		1150000	194	485	ug/kg	2					
Lead, total recoverable		530000	192	485	ug/kg	2					
Manganese, total recoverable		4950000	172	971	ug/kg	2					
Molybdenum		522000	165	971	ug/kg	2					
Nickel, total recoverable		1720000	140	485	ug/kg	2					
Potassium, total recoverable		1720000	4460	9710	ug/kg	2					
Selenium, total recoverable		24700	283	485	ug/kg	2					
Silver, total recoverable		1050	195	485	ug/kg	2					
Sodium, total recoverable		2230000	593	9710	ug/kg	2					
Strontium		58300	50.6	485	ug/kg	2					
Thallium, total recoverable		5820	388	971	ug/kg	2					
Tin, total recoverable		9230	281	971	ug/kg	2					
Titanium		224000	65.2	485	ug/kg	2					
Uranium		562000	1710	4850	ug/kg	2					
Vanadium, total recoverable		776000	144	485	ug/kg	2					
Iron, total recoverable		125000000	19400	121000	ug/kg	50	RMJ	11/30/00	2128	53659	3
Magnesium, total recoverable		63300000	8930	48500	ug/kg	50					
Zinc, total recoverable		1440000	6670	12100	ug/kg	50					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	846 3050BS PREP	KLD1	11/14/00	1545	53116
SW846 7471A	EPA 7471 Mercury Prep Soil	ARD	11/13/00	2045	53124

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Project: HazWaste Contract

Report Date: December 12, 2000

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Client Sample ID: 696-B-S
Sample ID: 33977004
Project: WSRC00497
Client ID: WSRC006

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description
1	SW846 7471A
2	SW846 3005/6010B
3	SW846 3005/6010B

Notes:

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R4 EPA Functional Guideline Code:Data Rejected
U EPA Functional Guideline Code:Result < 5 * blank result
U EPA Functional Guideline Code:Result < MDL

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QC Summary

Report Date: December 12, 2000
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Client : Westinghouse Savannah Rivr Co.
Building 735-16A, Rm 5
P.O. Box 616
Aiken, SC 29802

Contact: Ms. Janet Crawford

Workorder: 33977

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Mercury Analysis Federal										
Batch 53359										
QC1000128804 33784001 DUP										
Mercury		24900		25300	ug/kg	2		(0%-16%)	AW2	11/15/00 15:04
QC1000128802 LCS										
Mercury	3130			3110	ug/kg		100	(58%-134%)		11/15/00 14:20
QC1000128807 LCSD										
Mercury	3130			2990	ug/kg	4	96	(0%-16%)		11/15/00 14:22
QC1000128801 MB										
Mercury			U	-5.61	ug/kg					11/15/00 14:18
QC1000128803 33784001 MS										
Mercury	99.3	24900		23600	ug/kg		N/A	(65%-136%)		11/15/00 15:02
QC1000128805 33977001 MS										
Mercury	93.9	67.2		168	ug/kg		107	(65%-136%)		11/15/00 14:31
QC1000128806 33977001 MSD										
Mercury	96.5	67.2		170	ug/kg	1	107	(0%-17%)		11/15/00 14:33
Metals Analysis-ICP Federal										
Batch 53659										
QC1000128749 LCS										
Aluminum, total recoverable	7980000			9880000	ug/kg		124	(64%-127%)	RMJ	12/01/00 20:55
Antimony, total recoverable	32300			57900	ug/kg		179*	(46%-171%)		
Arsenic, total recoverable	132000			138000	ug/kg		104	(70%-150%)		11/30/00 18:09
Barium. total recoverable	136000			153000	ug/kg		113	(79%-154%)		
Beryllium, total recoverable	95900			101000	ug/kg		105	(75%-129%)		
Boron, total recoverable	115000			114000	ug/kg		100	(29%-153%)		
Cadmium, total recoverable	117000			124000	ug/kg		106	(78%-122%)		
Calcium, total recoverable	11900000			12700000	ug/kg		106	(79%-150%)		
Chromium, total recoverable	91000			94700	ug/kg		104	(69%-143%)		
Cobalt, total recoverable	114000			118000	ug/kg		104	(75%-138%)		
Copper, total recoverable	121000			123000	ug/kg		102	(79%-139%)		
Iron, total recoverable	11400000			16100000	ug/kg		141	(52%-176%)		
Lead, total recoverable	144000			149000	ug/kg		104	(77%-129%)		
Magnesium, total recoverable	3010000			3390000	ug/kg		113	(65%-126%)		
Manganese, total recoverable	310000			347000	ug/kg		112	(76%-136%)		
Molybdenum	94900			96600	ug/kg		102	(80%-141%)		
Nickel, total recoverable	155000			169000	ug/kg		109	(77%-141%)		
Potassium, total recoverable	3030000			3140000	ug/kg		104	(63%-141%)		
Selenium, total recoverable	88800			88400	ug/kg		100	(78%-127%)		
Silver, total recoverable	119000			125000	ug/kg		105	(75%-125%)		
Sodium, total recoverable	798000			829000	ug/kg		104	(53%-132%)		
Strontium	79800			95100	ug/kg		119	(70%-130%)		
Thallium, total recoverable	142000			146000	ug/kg		102	(56%-149%)		
Tin, total recoverable	101000			99700	ug/kg		99	(70%-130%)		
Titanium	163000			346000	ug/kg		212*	(62%-138%)		
Uranium			U	-4630	ug/kg			(70%-130%)		

QC Summary

Workorder: 33977

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP Federal											
Batch 53659											
Vanadium, total recoverable	76500				87000	ug/kg		114	(80%-127%)		
Zinc, total recoverable	58600				60000	ug/kg		102	(70%-130%)		
QC1000128746 MB											
Aluminum, total recoverable				J	1770	ug/kg					11/30/00 18:03
Antimony, total recoverable				J	178	ug/kg					
Arsenic, total recoverable				U	167	ug/kg					
Barium. total recoverable				U	7.08	ug/kg					
Beryllium, total recoverable				U	5.42	ug/kg					
Boron, total recoverable				U	167	ug/kg					
Cadmium, total recoverable				U	2.17	ug/kg					
Calcium, total recoverable				J	2920	ug/kg					
Chromium, total recoverable				U	66.1	ug/kg					
Cobalt, total recoverable				U	-10.2	ug/kg					
Copper, total recoverable				U	91.2	ug/kg					
Iron, total recoverable					8020	ug/kg				MNC	12/02/00 13:41
Lead, total recoverable				U	-138	ug/kg				RMJ	11/30/00 18:03
Magnesium, total recoverable				J	841	ug/kg					
Manganese, total recoverable				U	107	ug/kg					
Molybdenum				U	66.0	ug/kg					
Nickel, total recoverable				U	75.8	ug/kg					
Potassium, total recoverable				U	3580	ug/kg					
Selenium, total recoverable				U	168	ug/kg					
Silver, total recoverable				U	17.7	ug/kg					
Sodium, total recoverable				J	1600	ug/kg					
Strontium				U	6.56	ug/kg					
Thallium, total recoverable				U	-31.1	ug/kg					
Tin, total recoverable				J	807	ug/kg					
Titanium				U	44.7	ug/kg					
Uranium				U	178	ug/kg					
Vanadium, total recoverable				U	18.0	ug/kg					
Zinc, total recoverable				U	177	ug/kg					
QC1000128747 33861007 MS											
Aluminum, total recoverable	236000		116000		624000	ug/kg		215*	(70%-130%)		11/30/00 18:25
Antimony, total recoverable	23600	J	228		21700	ug/kg		91	(70%-130%)		
Arsenic, total recoverable	23600		1870		24500	ug/kg		96	(72%-114%)		
Barium. total recoverable	23600		35900		63400	ug/kg		116	(66%-127%)		
Beryllium, total recoverable	23600	U	20.5		24200	ug/kg		102	(75%-119%)		
Boron, total recoverable	23600				24200	ug/kg		92	(70%-130%)		
Cadmium, total recoverable	23600	J	207		24000	ug/kg		101	(76%-118%)		
Calcium, total recoverable	236000		1530000		1990000	ug/kg		194*	(68%-125%)		
Chromium, total recoverable	23600		6370		30600	ug/kg		103	(74%-122%)		
Cobalt, total recoverable	23600	J	316		24400	ug/kg		102	(71%-123%)		
Copper, total recoverable	23600		16500		39500	ug/kg		98	(73%-124%)		
Iron, total recoverable	236000		265000		788000	ug/kg		222*	(70%-130%)		
Lead, total recoverable	23600		1350		24800	ug/kg		100	(71%-123%)		
Magnesium, total recoverable	236000		538000		975000	ug/kg		185*	(70%-130%)		
Manganese, total recoverable	23600		12400		37100	ug/kg		105	(70%-130%)		
Molybdenum	23600	U	-61.4		23200	ug/kg		99	(70%-130%)		

QC Summary

Workorder: 33977

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 53659											
Nickel, total recoverable	23600	4890		29000	ug/kg		102	(74%-121%)			
Potassium, total recoverable	236000	41100		290000	ug/kg		105	(65%-130%)			
Selenium, total recoverable	23600	1110		22500	ug/kg		91	(67%-113%)			
Silver, total recoverable	23600	46.2	U	22400	ug/kg		95	(76%-124%)			
Sodium, total recoverable	236000	62100		307000	ug/kg		104	(86%-123%)			
Strontium	23600			32800	ug/kg		105	(70%-130%)			
Thallium, total recoverable	23600	96.7	U	23600	ug/kg		100	(71%-117%)			
Tin, total recoverable	23600			24100	ug/kg		98	(70%-130%)			
Titanium	23600			38500	ug/kg		143*	(70%-130%)			
Uranium	23600			24500	ug/kg		104	(70%-130%)			
Vanadium, total recoverable	23600	2680		26100	ug/kg		99	(67%-130%)			
Zinc, total recoverable	23600	41600		51700	ug/kg		43*	(70%-124%)			
QC1000128751 33977001 MS											
Aluminum, total recoverable	238000	17800000		18100000	ug/kg		109	(70%-130%)		11/30/00	19:09
Antimony, total recoverable	23800	2480		11100	ug/kg		36*	(70%-130%)			
Arsenic, total recoverable	23800	1900000		1900000	ug/kg		0*	(72%-114%)			
Barium. total recoverable	23800	183000		197000	ug/kg		55*	(66%-127%)			
Beryllium, total recoverable	23800	24900		36500	ug/kg		49*	(75%-119%)			
Boron, total recoverable	23800	226000		235000	ug/kg		35*	(70%-130%)			
Cadmium, total recoverable	23800	6590		17700	ug/kg		47*	(76%-118%)			
Calcium, total recoverable	238000	15600000		15600000	ug/kg		5*	(68%-125%)			
Chromium, total recoverable	23800	261000		274000	ug/kg		51*	(74%-122%)			
Cobalt, total recoverable	23800	2740000		2720000	ug/kg		-75 *	(71%-123%)			
Copper, total recoverable	23800	1530000		1540000	ug/kg		39*	(73%-124%)			
Iron, total recoverable	238000	131000000		141000000	ug/kg		4220*	(70%-130%)		11/30/00	21:06
Lead, total recoverable	23800	939000		940000	ug/kg		6*	(71%-123%)		11/30/00	19:09
Magnesium, total recoverable	238000	58700000		63400000	ug/kg		1980*	(70%-130%)		11/30/00	21:06
Manganese, total recoverable	23800	5210000		5060000	ug/kg		-626 *	(70%-130%)		11/30/00	19:09
Molybdenum	23800	381000		393000	ug/kg		N/A	(70%-130%)			
Nickel, total recoverable	23800	3950000		3950000	ug/kg		15*	(74%-121%)			
Potassium, total recoverable	238000	1650000		1720000	ug/kg		29*	(65%-130%)			
Selenium, total recoverable	23800	46300		55900	ug/kg		41*	(67%-113%)			
Silver, total recoverable	23800	1280		13500	ug/kg		51*	(76%-124%)			
Sodium, total recoverable	238000	2180000		2200000	ug/kg		7*	(86%-123%)			
Strontium	23800	54200		66400	ug/kg		51*	(70%-130%)			
Thallium, total recoverable	23800	7050		18200	ug/kg		47*	(71%-117%)			
Tin, total recoverable	23800	11100		22700	ug/kg		49*	(70%-130%)			
Titanium	23800	187000		202000	ug/kg		N/A	(70%-130%)			
Uranium	23800	778000		794000	ug/kg		N/A	(70%-130%)			
Vanadium, total recoverable	23800	404000		419000	ug/kg		62*	(67%-130%)			
Zinc, total recoverable	23800	1230000		1320000	ug/kg		385*	(70%-124%)		11/30/00	21:06
QC1000128748 33861007 MSD											
Aluminum, total recoverable	229000	116000		596000	ug/kg	5	209	(0%-20%)		11/30/00	18:31
Antimony, total recoverable	22900	228	J	22000	ug/kg	2	95	(0%-28%)			
Arsenic, total recoverable	22900	1870		24200	ug/kg	1	97	(0%-16%)			
Barium. total recoverable	22900	35900		71400	ug/kg	12	155	(0%-23%)			
Beryllium, total recoverable	22900	20.5	U	24300	ug/kg	1	106	(0%-17%)			
Boron, total recoverable	22900			24800	ug/kg	2	97	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 53659											
Cadmium, total recoverable	22900	207	J	24100	ug/kg	0	104	(0%-10%)			
Calcium, total recoverable	229000	1530000		2200000	ug/kg	10	293	(0%-25%)			
Chromium, total recoverable	22900	6370		30500	ug/kg	0	105	(0%-19%)			
Cobalt, total recoverable	22900	316	J	24700	ug/kg	1	106	(0%-12%)			
Copper, total recoverable	22900	16500		62300	ug/kg	45*	200	(0%-17%)			
Iron, total recoverable	229000	265000		762000	ug/kg	3	216	(0%-20%)			
Lead, total recoverable	22900	1350		25700	ug/kg	4	106	(0%-20%)			
Magnesium, total recoverable	229000	538000		1070000	ug/kg	9	231	(0%-20%)			
Manganese, total recoverable	22900	12400		38200	ug/kg	3	112	(0%-20%)			
Molybdenum	22900	-61.4	U	23400	ug/kg	1	102	(0%-20%)			
Nickel, total recoverable	22900	4890		29400	ug/kg	2	107	(0%-14%)			
Potassium, total recoverable	229000	41100		288000	ug/kg	0	108	(0%-26%)			
Selenium, total recoverable	22900	1110		22100	ug/kg	2	92	(0%-17%)			
Silver, total recoverable	22900	46.2	U	22600	ug/kg	1	98	(0%-15%)			
Sodium, total recoverable	229000	62100		319000	ug/kg	4	112	(0%-11%)			
Strontium	22900			33600	ug/kg	2	111	(0%-20%)			
Thallium, total recoverable	22900	96.7	U	24200	ug/kg	3	105	(0%-10%)			
Tin, total recoverable	22900			24200	ug/kg	0	101	(0%-20%)			
Titanium	22900			36200	ug/kg	6	137	(0%-20%)			
Uranium	22900			25400	ug/kg	3	111	(0%-20%)			
Vanadium, total recoverable	22900	2680		26200	ug/kg	0	103	(0%-21%)			
Zinc, total recoverable	22900	41600		55800	ug/kg	8	62	(0%-25%)			
QC1000128752 33977001 MSD											
Aluminum, total recoverable	248000	17800000		18100000	ug/kg	0	117	(0%-20%)		11/30/00	19:15
Antimony, total recoverable	24800	2480		11000	ug/kg	1	34	(0%-28%)			
Arsenic, total recoverable	24800	1900000		1910000	ug/kg	0	33	(0%-16%)			
Barium. total recoverable	24800	183000		199000	ug/kg	1	62	(0%-23%)			
Beryllium, total recoverable	24800	24900		37300	ug/kg	2	50	(0%-17%)			
Boron, total recoverable	24800	226000		241000	ug/kg	3	58	(0%-20%)			
Cadmium, total recoverable	24800	6590		18900	ug/kg	6	50	(0%-10%)			
Calcium, total recoverable	248000	15600000		15800000	ug/kg	2	104	(0%-25%)			
Chromium, total recoverable	24800	261000		276000	ug/kg	1	60	(0%-19%)			
Cobalt, total recoverable	24800	2740000		2720000	ug/kg	0	-62	(0%-12%)			
Copper, total recoverable	24800	1530000		1550000	ug/kg	1	86	(0%-17%)			
Iron, total recoverable	248000	131000000		133000000	ug/kg	6	837	(0%-20%)		11/30/00	21:12
Lead, total recoverable	24800	939000		957000	ug/kg	2	76	(0%-20%)		11/30/00	19:15
Magnesium, total recoverable	248000	58700000		60200000	ug/kg	5	608	(0%-20%)		11/30/00	21:12
Manganese, total recoverable	24800	5210000		5230000	ug/kg	3	66	(0%-20%)		11/30/00	19:15
Molybdenum	24800	381000		401000	ug/kg	2	N/A	(0%-20%)			
Nickel, total recoverable	24800	3950000		3980000	ug/kg	1	137	(0%-14%)			
Potassium, total recoverable	248000	1650000		1800000	ug/kg	5	61	(0%-26%)			
Selenium, total recoverable	24800	46300		56200	ug/kg	0	40	(0%-17%)			
Silver, total recoverable	24800	1280		14400	ug/kg	7	53	(0%-15%)			
Sodium, total recoverable	248000	2180000		2400000	ug/kg	9	87	(0%-11%)			
Strontium	24800	54200		67900	ug/kg	2	55	(0%-20%)			
Thallium, total recoverable	24800	7050		19400	ug/kg	7	50	(0%-10%)			
Tin, total recoverable	24800	11100		23100	ug/kg	2	49	(0%-20%)			
Titanium	24800	187000		199000	ug/kg	1	N/A	(0%-20%)			

QC Summary

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP Federal											
Batch 53659											
Uranium	24800		778000		802000	ug/kg	1	N/A	(0%-20%)		
Vanadium, total recoverable	24800		404000		422000	ug/kg	1	74	(0%-21%)		
Zinc, total recoverable	24800		1230000		1290000	ug/kg	3	237	(0%-25%)		11/30/00 21:12
QC1000128750 33861007 SDILT											
Aluminum, total recoverable			1240		233	ug/L	6.28				11/30/00 18:20
Antimony, total recoverable		J	2.44	U	0.642	ug/L	31.6				
Arsenic, total recoverable			20.0	J	4.04	ug/L	1.13				
Barium. total recoverable			384		71.3	ug/L	7.22				
Beryllium, total recoverable		U	0.219	U	0.0309	ug/L	29.5				
Boron, total recoverable				U	6.24	ug/L	N/A				
Cadmium, total recoverable		J	2.22	U	0.646	ug/L	45.7				
Calcium, total recoverable			16400		3050	ug/L	6.79				
Chromium, total recoverable			68.1		12.8	ug/L	6.03				
Cobalt, total recoverable		J	3.38	U	0.514	ug/L	23.9				
Copper, total recoverable			177		32.6	ug/L	7.77				
Iron, total recoverable			2840		528	ug/L	6.89				
Lead, total recoverable			14.5	J	3.53	ug/L	21.9				
Magnesium, total recoverable			5760		1090	ug/L	5.16				
Manganese, total recoverable			133		24.8	ug/L	6.92				
Molybdenum		U	-0.657	U	0.316	ug/L	-340				
Nickel, total recoverable			52.3		9.34	ug/L	10.8				
Potassium, total recoverable			440	J	97.2	ug/L	10.4				
Selenium, total recoverable			11.8	U	2.77	ug/L	17.2				
Silver, total recoverable		U	0.495	U	0.323	ug/L	226				
Sodium, total recoverable			665		112	ug/L	15.9				
Strontium					16.2	ug/L	N/A				
Thallium, total recoverable		U	1.04	U	0.339	ug/L	63.6				
Tin, total recoverable				J	3.93	ug/L	N/A				
Titanium					9.19	ug/L	N/A				
Uranium				U	-4.76	ug/L	N/A				
Vanadium, total recoverable			28.6		5.64	ug/L	1.46				
Zinc, total recoverable			446		86.0	ug/L	3.49				
QC1000128753 33977001 SDILT											
Aluminum, total recoverable			178000		58800	ug/L	65				11/30/00 19:04
Antimony, total recoverable			24.8	J	7.87	ug/L	59				
Arsenic, total recoverable			19000		6730	ug/L	76.7				
Barium. total recoverable			1830		588	ug/L	60.4				
Beryllium, total recoverable			249		83.9	ug/L	68.6				
Boron, total recoverable			2260		773	ug/L	71				
Cadmium, total recoverable			65.9		22.4	ug/L	69.6				
Calcium, total recoverable			156000		54200	ug/L	73.7				
Chromium, total recoverable			2610		892	ug/L	70.6				
Cobalt, total recoverable			27400		9390	ug/L	71.5				
Copper, total recoverable			15300		4790	ug/L	57				
Iron, total recoverable			52300		11300	ug/L	8.3				11/30/00 21:01
Lead, total recoverable			9390		3280	ug/L	74.9				11/30/00 19:04
Magnesium, total recoverable			23500		5030	ug/L	7.02				11/30/00 21:01
Manganese, total recoverable			52100		22900	ug/L	119				11/30/00 19:04

QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP Federal											
Batch 53659											
Molybdenum		3810		1280	ug/L	68.2					
Nickel, total recoverable		39500		14200	ug/L	79.6					
Potassium, total recoverable		16500		5620	ug/L	70.6					
Selenium, total recoverable		463		170	ug/L	83.5					
Silver, total recoverable		12.8	J	3.98	ug/L	55.1					
Sodium, total recoverable		21800		6700	ug/L	53.5					
Strontium		542		175	ug/L	61.8					
Thallium, total recoverable		70.5		35.5	ug/L	152					
Tin, total recoverable		111		39.8	ug/L	79.5					
Titanium		1870		618	ug/L	65.3					
Uranium		7780		2470	ug/L	58.7					
Vanadium, total recoverable		4040		1350	ug/L	66.9					
Zinc, total recoverable		492		108	ug/L	9.59				11/30/00	21:01

Notes:
The Qualifiers in this report are defined as follows:

J	EPA Functional Guideline Code:Result > MDA + 2 * Error
J	EPA Functional Guideline Code:Result >= MDL but result < PQL/RDL
R4	EPA Functional Guideline Code:Data Rejected
U	EPA Functional Guideline Code:Result < 5 * blank result
U	EPA Functional Guideline Code:Result < MDL

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

00542A.dat

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689-A-S  110600 0000 111000 111300 2045 EPA7471A  111500 1424 EPA7471A  53124  GE 33977001  HGTOT  4.17   9.16        67.2       UGKG  0.00  W 1.00   MER179  53359  AW2  100  33977001 0  10 45.8  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  AGTOT  201    500         1280       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  ALTOT  770    5000    V   17800000   UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  ASTOT  261    500         1900000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  BATOT  92.9   500         183000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  BETOT  62.2   500         24900      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  BTOT   820    5000        226000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  CATOT  2400   10000   V   15600000   UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  CDTOT  76.3   500         6590       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  COTOT  111    500         2740000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  CRTOT  129    500         261000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  CUTOT  200    500         1530000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  KTOT   4590   10000       1650000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  MNTOT  177    1000        5210000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  MOTOT  170    1000        381000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  NATOT  611    10000   V   2180000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  NITOT  144    500     V   3950000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  PBTOT  198    500         939000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  SBTOT  163    1000    V   2480       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  SETOT  291    500         46300      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  SNTOT  289    1000    V   11100      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  SRTOT  52.1   500         54200      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  TITOT  67.2   500         187000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  TLTOT  400    1000        7050       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  UTOT   1760   5000    V   778000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1858 EPA6010B  53116  GE 33977001  VTOT   148    500         404000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 2055 EPA6010B  53116  GE 33977001  FETOT  20000  125000  V   131000000  UGKG  0.00  W 50.0   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 2055 EPA6010B  53116  GE 33977001  MGTOT  9200   50000   V   58700000   UGKG  0.00  W 50.0   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 2055 EPA6010B  53116  GE 33977001  ZNTOT  6880   12500       1230000    UGKG  0.00  W 50.0   TRACE2  53659  RMJ  100              10 50.0  AB93796N
689-B-S  110600 0000 111000 111300 2045 EPA7471A  111500 1435 EPA7471A  53124  GE 33977002  HGTOT  4.47   9.82        70.2       UGKG  0.00  W 1.00   MER179  53359  AW2  100  33977002 0  10 49.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  AGTOT  193    481         1300       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  ALTOT  740    4810    V   18000000   UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  ASTOT  251    481         1880000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  BATOT  89.3   481         183000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  BETOT  59.8   481         24800      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  BTOT   788    4810        221000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  CATOT  2310   9620    V   15000000   UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  CDTOT  73.4   481         6670       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  COTOT  107    481         2680000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  CRTOT  124    481         260000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  CUTOT  192    481         1510000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  KTOT   4410   9620        1690000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  MNTOT  170    962         5070000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  MOTOT  163    962         380000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  NATOT  588    9620    V   2160000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  NITOT  138    481     V   3920000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  PBTOT  190    481         927000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  SBTOT  157    962     V   2480       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  SETOT  280    481         45100      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  SNTOT  278    962     V   11000      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  SRTOT  50.1   481         53800      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  TITOT  64.8   481         188000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  TLTOT  385    962         5670       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  UTOT   1690   4810    V   776000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1920 EPA6010B  53116  GE 33977002  VTOT   142    481         407000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 2117 EPA6010B  53116  GE 33977002  FETOT  19200  120000  V   137000000  UGKG  0.00  W 50.0   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 2117 EPA6010B  53116  GE 33977002  MGTOT  8850   48100   V   62100000   UGKG  0.00  W 50.0   TRACE2  53659  RMJ  100              10 48.1  AB93796N
689-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 2117 EPA6010B  53116  GE 33977002  ZNTOT  6610   12000       1280000    UGKG  0.00  W 50.0   TRACE2  53659  RMJ  100              10 48.1  AB93796N
696-A-S  110600 0000 111000 111300 2045 EPA7471A  111500 1437 EPA7471A  53124  GE 33977003  HGTOT  4.25   9.35        18.9       UGKG  0.00  W 1.00   MER179  53359  AW2  100  33977003 0  10 46.7  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  AGTOT  199    495         1010       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  ALTOT  762    4950    V   17800000   UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  ASTOT  258    495         1340000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  BATOT  92.0   495         111000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  BETOT  61.6   495         65600      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  BTOT   812    4950        228000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  CATOT  2380   9900    V   11300000   UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  CDTOT  75.5   495         27700      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  COTOT  110    495         1320000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  CRTOT  128    495         245000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  CUTOT  198    495         1170000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  KTOT   4540   9900        1550000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  MNTOT  175    990         5010000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  MOTOT  168    990         535000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  NATOT  605    9900    V   1820000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  NITOT  143    495     V   1770000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  PBTOT  196    495         530000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  SBTOT  161    990     V   1810       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  SETOT  288    495         25100      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  SNTOT  286    990     V   9750       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  SRTOT  51.6   495         58400      UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  TITOT  66.5   495         239000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  TLTOT  396    990         5990       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  UTOT   1740   4950    V   571000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 1926 EPA6010B  53116  GE 33977003  VTOT   147    495         794000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 2123 EPA6010B  53116  GE 33977003  FETOT  19800  124000  V   130000000  UGKG  0.00  W 50.0   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 2123 EPA6010B  53116  GE 33977003  MGTOT  9110   49500   V   64300000   UGKG  0.00  W 50.0   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-A-S  110600 0000 111000 111400 1545 EPA3050B  113000 2123 EPA6010B  53116  GE 33977003  ZNTOT  6810   12400       1430000    UGKG  0.00  W 50.0   TRACE2  53659  RMJ  100              10 49.5  AB93796N
696-B-S  110600 0000 111000 111300 2045 EPA7471A  111500 1439 EPA7471A  53124  GE 33977004  HGTOT  4.45   9.77        38.0       UGKG  0.00  W 1.00   MER179  53359  AW2  100  33977004 0  10 48.9  AB93796N
696-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1931 EPA6010B  53116  GE 33977004  AGTOT  195    485         1050       UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.5  AB93796N
696-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1931 EPA6010B  53116  GE 33977004  ALTOT  748    4850    V   17300000   UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.5  AB93796N
696-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1931 EPA6010B  53116  GE 33977004  ASTOT  253    485         1320000    UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.5  AB93796N
696-B-S  110600 0000 111000 111400 1545 EPA3050B  113000 1931 EPA6010B  53116  GE 33977004  BATOT  90.2   485         110000     UGKG  0.00  W 2.00   TRACE2  53659  RMJ  100              10 48.5  AB93796N
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696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         BETOT   60.4    485             64800       UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         BTOT    796     4850            228000 .    UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         CATOT   2330    9710     V      11400000    UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         CDTOT   74.1    485             28000       UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         COTOT   108     485             1300000     UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         CRTOT   125     485             229000      UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         CUTOT   194     485             1150000     UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         KTOT    4460    9710            1720000     UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         MNTOT   172     971             4950000     UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         MOTOT   165     971             522000      UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         NATOT   593     9710     V      2230000     UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         NITOT   140     485      V      1720000     UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         PBTOT   192     485             530000      UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         SBTOT   158     971      V      1290        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         SETOT   283     485             24700       UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         SNTOT   281     971      V      9230        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         SRTOT   50.6    485             58300       UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         TITOT   65.2    485             224000      UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         TLTOT   388     971             5820        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         UTOT    1710    4850     V      562000      UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 1931 EPA6010B   53116   GE 33977004         VTOT    144     485             776000      UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 2128 EPA6010B   53116   GE 33977004         FETOT   19400   121000   V      125000000   UGKG    0.00               W 50.0   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 2128 EPA6010B   53116   GE 33977004         MGTOT   8930    48500    V      63300000    UGKG    0.00               W 50.0   TRACE2   53659   RMJ  100         10 48.5   AB93796N
696-B-S   110600 0000 111000 111400 1545 EPA3050B   113000 2128 EPA6010B   53116   GE 33977004         ZNTOT   6670    12100           1440000     UGKG    0.00               W 50.0   TRACE2   53659   RMJ  100         10 48.5   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   AGTOT   201     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   ALTOT   770     5000    J  IV   1770        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   ASTOT   261     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   BATOT   92.9    500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   BETOT   62.2    500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   BTOT    820     5000    U       5000        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   CATOT   2400    10000   J  IV   2920        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   CDTOT   76.3    500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   COTOT   111     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   CRTOT   129     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   CUTOT   200     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   KTOT    4590    10000   U       10000       UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   MGTOT   368     2000    J  IV   841         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   MNTOT   177     1000    U       1000        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   MOTOT   170     1000    U       1000        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   NATOT   611     10000   J  IV   1600        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   NITOT   144     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   PBTOT   198     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   SBTOT   163     1000    J  IV   178         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   SETOT   291     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   SNTOT   289     1000    J  IV   807         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   SRTOT   52.1    500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   TITOT   67.2    500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   TLTOT   400     1000    U       1000        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   UTOT    1760    5000    U       5000        UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   VTOT    148     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1803 EPA6010B   53116   GE 1000128746   3   ZNTOT   275     500     U       500         UGKG    0.00               W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   120200 1341 EPA6010B   53116   GE 1000128746   3   FETOT   800     5000        V   8020        UGKG    0.00               W 2.00   TRACE2   53659   MNC  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  AGTOT   201     500             125000      UGKG    119000    105      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  ASTOT   261     500             138000      UGKG    132000    104      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  BATOT   92.9    500             153000      UGKG    136000    113      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  BETOT   62.2    500             101000      UGKG    95900     105      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  BTOT    820     5000            114000      UGKG    115000    100      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  CATOT   2400    10000       V   12700000    UGKG    11900000  106      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  CDTOT   76.3    500             124000      UGKG    117000    106      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  COTOT   111     500             118000      UGKG    114000    104      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  CRTOT   129     500             94700       UGKG    91000     104      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  CUTOT   200     500             123000      UGKG    121000    102      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  FETOT   800     5000        V   16100000    UGKG    11400000  141      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  KTOT    4590    10000           3140000     UGKG    3030000   104      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  MGTOT   368     2000        V   3390000     UGKG    3010000   113      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  MNTOT   177     1000            347000      UGKG    310000    112      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  MOTOT   170     1000            96600       UGKG    94900     102      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  NATOT   611     10000       V   829000      UGKG    798000    104      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  NITOT   144     500         V   169000      UGKG    155000    109      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  PBTOT   198     500             149000      UGKG    144000    104      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  SETOT   291     500             88400       UGKG    88800     100      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  SNTOT   289     1000        V   99700       UGKG    101000    99       W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  SRTOT   52.1    500             95100       UGKG    79800     119      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  TITOT   67.2    500             346000      UGKG    163000    212      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  TLTOT   400     1000            146000      UGKG    142000    102      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  VTOT    148     500             87000       UGKG    76500     114      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   113000 1809 EPA6010B   53116   GE 1000128749   2D  ZNTOT   275     500             60000       UGKG    58600     102      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   120100 2055 EPA6010B   53116   GE 1000128749   2D  ALTOT   770     5000        V   9880000     UGKG    7980000   124      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
 LB       111400 1545 111400 111400 1545 EPA3050B   120100 2055 EPA6010B   53116   GE 1000128749   2D  SBTOT   163     1000        V   57900       UGKG    32300     179      W 2.00   TRACE2   53659   RMJ  100       D 1 50.0   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  AGTOT   191     476             13500       UGKG    23800     51       W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  ALTOT   733     4760        V   18100000    UGKG    238000    109      W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  BATOT   88.5    476             197000      UGKG    23800     55       W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  BETOT   59.2    476             36500       UGKG    23800     49       W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  BTOT    781     4760            235000      UGKG    23800     35       W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  CATOT   2290    9520        V   15600000    UGKG    238000    5        W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  CDTOT   72.7    476             17700       UGKG    23800     47       W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  COTOT   106     476             2720000     UGKG    23800     -75      W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  CRTOT   123     476             274000      UGKG    23800     51       W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  CUTOT   190     476             1540000     UGKG    23800     39       W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  KTOT    4370    9520            1720000     UGKG    238000    29       W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  MNTOT   169     952             5060000     UGKG    23800     -626     W 2.00   TRACE2   53659   RMJ  100       D 1 47.6   AB93796N
689-A-S   110600 0000 111000 111400 1545 EPA3050B   113000 1909 EPA6010B   53116   GE 1000128751   2A  MOTOT   162     952             393000      UGKG    23800     52       W 2.00   TRACE2   53659   RMJ  100       D 1 47.8   AB93796N
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689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	NATOT	582	9520	V	2200000	UGKG	238000	7	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	NITOT	137	476	V	3950000	UGKG	23800	15	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	PBTOT	189	476		940000	UGKG	23800	6	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	SBTOT	155	952	V	11100	UGKG	23800	36	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	SETOT	277	476		55900	UGKG	23800	41	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	SNTOT	275	952	V	22700	UGKG	23800	49	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	SRTOT	49.6	476		68400	UGKG	23800	51	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	TITOT	64.0	476		202000	UGKG	23800	63	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	TLTOT	381	952		18200	UGKG	23800	47	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	UTOT	1680	4760	V	794000	UGKG	23800	69	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1909	EPA6010B	53116	GE	1000128751	2A	VTOT	141	476		419000	UGKG	23800	62	W	2.00	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	2106	EPA6010B	53116	GE	1000128751	2A	FETOT	19000	119000	V	141000000	UGKG	238000	4220	W	50.0	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	2106	EPA6010B	53116	GE	1000128751	2A	MGTOT	8760	47600	V	63400000	UGKG	238000	1980	W	50.0	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	2106	EPA6010B	53116	GE	1000128751	2A	ZNTOT	6550	11900		1320000	UGKG	23800	385	W	50.0	TRACE2	53659	RMJ	100	D	1	47.6	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	AGTOT	199	495		14400	UGKG	24800	53	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	ALTOT	762	4950	V	18100000	UGKG	248000	117	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA8010B	53116	GE	1000128752	2B	ASTOT	258	495		1910000	UGKG	24800	33	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	BATOT	92.0	495		199000	UGKG	24800	62	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	BETOT	61.6	495		37300	UGKG	24800	50	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	BTOT	812	4950		241000	UGKG	24800	58	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	CATOT	2380	9900	V	15800000	UGKG	248000	104	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	CDTOT	75.5	495		18900	UGKG	24800	50	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	COTOT	110	495		2720000	UGKG	24800	-62	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	CRTOT	128	495		276000	UGKG	24800	60	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	CUTOT	198	495		1550000	UGKG	24800	86	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	KTOT	4540	9900		1800000	UGKG	248000	61	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	MNTOT	175	990		5230000	UGKG	24800	66	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	MOTOT	168	990		401000	UGKG	24800	81	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	NATOT	605	9900	V	2400000	UGKG	248000	87	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	NITOT	143	495	V	3980000	UGKG	24800	137	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	PBTOT	196	495		957000	UGKG	24800	76	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	SBTOT	161	990	V	11000	UGKG	24800	34	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	SETOT	288	495		56200	UGKG	24800	40	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	SNTOT	286	990	V	23100	UGKG	24800	49	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	SRTOT	51.6	495		67900	UGKG	24800	55	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	TITOT	66.5	495		199000	UGKG	24800	51	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	TLTOT	396	990		19400	UGKG	24800	50	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	UTOT	1740	4950	V	802000	UGKG	24800	100	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	1915	EPA6010B	53116	GE	1000128752	2B	VTOT	147	495		422000	UGKG	24800	74	W	2.00	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	2112	EPA6010B	53116	GE	1000128752	2B	FETOT	19800	124000	V	133000000	UGKG	248000	837	W	50.0	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	2112	EPA6010B	53116	GE	1000128752	2B	MGTOT	9110	49500	V	60200000	UGKG	248000	608	W	50.0	TRACE2	53659	RMJ	100	D	1	49.5	AB93796N
689-A-S	110600	0000	111000	111400	1545	EPA3050B	113000	2112	EPA6010B	53116	GE	1000128752	2B	ZNTOT	6810	12400		1290000	UGKG	24800	237	W	50.0	TRACE2	53659	RMJ	100	D	1	49.5	AB93706N
LB	111300	2045	111300	111300	2045	EPA7471A	111500	1418	EPA7471A	53124	GE	1000128801	3	HGTOT	4.55	10.0	U	10.0	UGKG	0.00		W	1.00	MER179	53359	AW2	100	D	1	50.0	AB93796N
LB	111300	2045	111300	111300	2045	EPA7471A	111500	1420	EPA7471A	53124	GE	1000128802	2D	HGTOT	68.3	150		3110	UGKG	3130	100	W	5.00	MER179	53359	AW2	100	D	1	150	AB93796N
689-A-S	110600	0000	111000	111300	2045	EPA7471A	111500	1431	EPA7471A	53124	GE	1000128805	2A	HGTOT	4.27	9.39		168	UGKG	93.9	107	W	1.00	MER179	53359	AW2	100	D	1	46.9	AB93796N
689-A-S	110600	0000	111000	111300	2045	EPA7471A	111500	1433	EPA7471A	53124	GE	1000128806	2B	HGTOT	4.39	9.65		170	UGKG	96.5	107	W	1.00	MER179	53359	AW2	100	D	1	48.2	AB93796N
LB	111300	2045	111300	111300	2045	EPA7471A	111500	1422	EPA7471A	53124	GE	1000128807	2E	HGTOT	68.3	150		2990	UGKG	3130	96	W	5.00	MER179	53359	AW2	100	D	1	150	AB93796N

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689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   AGTOT      5.29    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   ALTOT      234     500             829       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   ASTOT      25.7    50.0            221       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   BATOT      7.48    50.0            452       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   BETOT      4.74    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   BTOT       47.4    500             8630      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   CATOT      355     1000            601000    UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   CDTOT      6.31    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   COTOT      6.27    50.0    J  I    47.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   CRTOT      10.6    50.0            12300     UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   CUTOT      18.4    50.0    J  I    45.2      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   FETOT      199     500        V    1490      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   MGTOT      35.4    200        V    1140000   UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   MNTOT      11.5    100     J  I    68.7      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   MOTOT      10.5    100             10500     UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   NITOT      30.9    50.0            91.7      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   PBTOT      18.3    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   SBTOT      34.3    100     U       100       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   SETOT      23.6    50.0            1820      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   SNTOT      19.8    100     U       100       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   SRTOT      4.69    50.0            2590      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   TITOT      4.59    50.0            60.6      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   TLTOT      39.3    100     J  I    43.7      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   UTOT       119     500     U       500       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   VTOT       8.90    50.0    J  I    25.6      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 1953 EPA6010B   53112   GE 33976001   ZNTOT      38.9    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112600 1314 EPA6010B   53112   GE 33976001   KTOT       820     5000            1290000   UGL   0.00   W 5.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1315 EPA3005A   112600 1314 EPA6010B   53112   GE 33976001   NATOT      650     5000       V    3210000   UGL   0.00   W 5.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-A-L   110600 0000 111000 111300 1845 EPA7470A   111400 0955 EPA7470A   53122   GE 33976001   HGTOT      0.600   2.00    U       2.00      UGL   0.00   W 1.00   MER179   53353   AW2   100   33976001.0    8   10.0   AB93796N
689-A-L   110600 0000 111000 111500 1232 N          111500 1232 EPA300.0   53511   GE 33976001   OXALATE    0.113   0.600   U       0.600     MGL   0.00   W 1.00   IC1      53511   RWS   100   33976001.0    8   1.00   AB93796N
689-A-L   110600 0000 111000 112100 0955 N          112100 0955 EPA300.0   54404   GE 33976001   BR         0.160   0.500   U       0.500     MGL   0.00   W 10.0   IC1      54404   RWS   100   33976001.0    8   1.00   AB93796N
689-A-L   110600 0000 111000 112100 0955 N          112100 0955 EPA300.0   54404   GE 33976001   CL         0.260   1.00            14.5      MGL   0.00   W 10.0   IC1      54404   RWS   100   33976001.0    8   1.00   AB93796N
689-A-L   110600 0000 111000 112100 0955 N          112100 0955 EPA300.0   54404   GE 33976001   F          0.170   0.500           20.6      MGL   0.00   W 10.0   IC1      54404   RWS   100   33976001.0    8   1.00   AB93796N
689-A-L   110600 0000 111000 112100 0955 N          112100 0955 EPA300.0   54404   GE 33976001   NO2        0.200   0.500           0.800     MGL   0.00   W 10.0   IC1      54404   RWS   100   33976001.0    8   1.00   AB93796N
689-A-L   110600 0000 111000 112100 0955 N          112100 0955 EPA300.0   54404   GE 33976001   OPO4       0.400   1.00            2.86      MGL   0.00   W 10.0   IC1      54404   RWS   100   33976001.0    8   1.00   AB93796N
689-A-L   110600 0000 111000 112100 1135 N          112100 1135 EPA300.0   54404   GE 33976001   NO3        10.0    25.0            1770      MGL   0.00   W 500    IC1      54404   RWS   100   33976001.0    8   1.00   AB93796N
689-A-L   110600 0000 111000 112100 1135 N          112100 1135 EPA300.0   54404   GE 33976001   SO4        39.5    100             5290      MGL   0.00   W 500    IC1      54404   RWS   100   33976001.0    8   1.00   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   AGTOT      5.29    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   ALTOT      234     500     U       500       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   ASTOT      25.7    50.0            195       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   BATOT      7.48    50.0            398       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   BETOT      4.74    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   BTOT       47.4    500             8580      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   CATOT      355     1000            601000    UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   CDTOT      6.31    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   COTOT      6.27    50.0    J  I    14.9      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   CRTOT      10.6    50.0            12000     UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   CUTOT      18.4    50.0    J  I    23.9      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   FETOT      199     500        V    652       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   MGTOT      35.4    200        V    1100000   UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   MNTOT      11.5    100     U       100       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   MOTOT      10.5    100             10500     UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   NITOT      30.9    50.0    J  I    40.8      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   PBTOT      18.3    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   SBTOT      34.3    100     U       100       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   SETOT      23.6    50.0            1740      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   SNTOT      19.8    100     U       100       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   SRTOT      4.69    50.0            2520      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   TITOT      4.59    50.0    J  I    10.7      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   TLTOT      39.3    100     J  I    58.3      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   UTOT       119     500     U       500       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   VTOT       8.90    50.0    J  I    21.4      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112500 1959 EPA6010B   53112   GE 33976002   ZNTOT      38.9    50.0            62.8      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112600 1320 EPA6010B   53112   GE 33976002   KTOT       820     5000            1250000   UGL   0.00   W 5.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1315 EPA3005A   112600 1320 EPA6010B   53112   GE 33976002   NATOT      650     5000       V    3090000   UGL   0.00   W 5.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
689-B-L   110600 0000 111000 111300 1845 EPA7470A   111400 0957 EPA7470A   53122   GE 33976002   HGTOT      0.600   2.00    U       2.00      UGL   0.00   W 1.00   MER179   53353   AW2   100   33976002.0    8   10.0   AB93796N
689-B-L   110600 0000 111000 111500 1333 N          111500 1333 EPA300.0   53511   GE 33976002   OXALATE    0.113   0.600   U       0.600     MGL   0.00   W 1.00   IC1      53511   RWS   100   33976002.0    8   1.00   AB93796N
689-B-L   110600 0000 111000 112100 1038 N          112100 1038 EPA300.0   54404   GE 33976002   BR         0.160   0.500   U       0.500     MGL   0.00   W 10.0   IC1      54404   RWS   100   33976002.0    8   1.00   AB93796N
689-B-L   110600 0000 111000 112100 1038 N          112100 1038 EPA300.0   54404   GE 33976002   CL         0.260   1.00            14.5      MGL   0.00   W 10.0   IC1      54404   RWS   100   33976002.0    8   1.00   AB93796N
689-B-L   110600 0000 111000 112100 1038 N          112100 1038 EPA300.0   54404   GE 33976002   F          0.170   0.500           20.8      MGL   0.00   W 10.0   IC1      54404   RWS   100   33976002.0    8   1.00   AB93796N
689-B-L   110600 0000 111000 112100 1038 N          112100 1038 EPA300.0   54404   GE 33976002   NO2        0.200   0.500           0.820     MGL   0.00   W 10.0   IC1      54404   RWS   100   33976002.0    8   1.00   AB93796N
689-B-L   110600 0000 111000 112100 1038 N          112100 1038 EPA300.0   54404   GE 33976002   OPO4       0.400   1.00            7.02      MGL   0.00   W 10.0   IC1      54404   RWS   100   33976002.0    8   1.00   AB93796N
689-B-L   110600 0000 111000 112100 1247 N          112100 1247 EPA300.0   54404   GE 33976002   NO3        10.0    25.0            1650      MGL   0.00   W 500    IC1      54404   RWS   100   33976002.0    8   1.00   AB93796N
689-B-L   110600 0000 111000 112100 1247 N          112100 1247 EPA300.0   54404   GE 33976002   SO4        39.5    100             4880      MGL   0.00   W 500    IC1      54404   RWS   100   33976002.0    8   1.00   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   AGTOT      5.29    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   ALTOT      234     500     U       500       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   ASTOT      25.7    50.0            113       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   BATOT      7.48    50.0            431       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   BETOT      4.74    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   BTOT       47.4    500             10200     UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   CATOT      355     1000            569000    UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   CDTOT      6.31    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   COTOT      6.27    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   CRTOT      10.6    50.0            12300     UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   CUTOT      18.4    50.0    J  I    20.3      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   FETOT      199     500     J  IV   233       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   MGTOT      35.4    200        V    1150000   UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   MNTOT      11.5    100     U       100       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   MOTOT      10.5    100             20700     UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   NITOT      30.9    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   PBTOT      18.3    50.0    U       50.0      UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
696-A-L   110600 0000 111000 111300 1315 EPA3005A   112500 2005 EPA6010B   53112   GE 33976003   SBTOT      34.3    100     U       100       UGL   0.00   W 1.00   TRACE2   53556   JAB   100                 8   10.0   AB93796N
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696-A-L  110600 0000 111000 111300 1315 EPA3005A  112500 2005 EPA6010B  53112  GE 33976003        SETOT     23.6   50.0          733      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1315 EPA3005A  112500 2005 EPA6010B  53112  GE 33976003        SNTOT     19.8   100    U      100      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1315 EPA3005A  112500 2005 EPA6010B  53112  GE 33976003        SRTOT     4.69   50.0          3000     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1315 EPA3005A  112500 2005 EPA6010B  53112  GE 33976003        TITOT     4.59   50.0   J  I   21.3     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1315 EPA3005A  112500 2005 EPA6010B  53112  GE 33976003        TLTOT     39.3   100    U      100      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1315 EPA3005A  112500 2005 EPA6010B  53112  GE 33976003        UTOT      119    500    U      500      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1315 EPA3005A  112500 2005 EPA6010B  53112  GE 33976003        VTOT      8.90   50.0          67.9     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1315 EPA3005A  112500 2005 EPA6010B  53112  GE 33976003        ZNTOT     38.9   50.0          83.4     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1315 EPA3005A  112600 1325 EPA6010B  53112  GE 33976003        KTOT      820    5000          1210000  UGL  0.00        W 5.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1315 EPA3005A  112600 1325 EPA6010B  53112  GE 33976003        NATOT     650    5000      V   2570000  UGL  0.00        W 5.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-A-L  110600 0000 111000 111300 1845 EPA7470A  111400 1003 EPA7470A  53122  GE 33976003        HGTOT     0.600  2.00   U      2.00     UGL  0.00        W 1.00  MER179  53353  AW2  100  33976003.0  8  10.0  AB93796N
696-A-L  110600 0000 111000 111500 1353 N         111500 1353 EPA300.0  53511  GE 33976003        OXALATE   0.113  0.600  U      0.600    MGL  0.00        W 1.00  IC1     53511  RWS  100  33976003.0  8  1.00  AB93796N
696-A-L  110600 0000 111000 112100 1052 N         112100 1052 EPA300.0  54404  GE 33976003        BR        0.160  0.500  U      0.500    MGL  0.00        W 10.0  IC1     54404  RWS  100  33976003.0  8  1.00  AB93796N
696-A-L  110600 0000 111000 112100 1052 N         112100 1052 EPA300.0  54404  GE 33976003        CL        0.260  1.00          13.7     MGL  0.00        W 10.0  IC1     54404  RWS  100  33976003.0  8  1.00  AB93796N
696-A-L  110600 0000 111000 112100 1052 N         112100 1052 EPA300.0  54404  GE 33976003        F         0.170  0.500         19.0     MGL  0.00        W 10.0  IC1     54404  RWS  100  33976003.0  8  1.00  AB93796N
696-A-L  110600 0000 111000 112100 1052 N         112100 1052 EPA300.0  54404  GE 33976003        NO2       0.200  0.500  U      0.500    MGL  0.00        W 10.0  IC1     54404  RWS  100  33976003.0  8  1.00  AB93796N
696-A-L  110600 0000 111000 112100 1052 N         112100 1052 EPA300.0  54404  GE 33976003        OPO4      0.400  1.00          4.82     MGL  0.00        W 10.0  IC1     54404  RWS  100  33976003.0  8  1.00  AB93796N
696-A-L  110600 0000 111000 112100 1302 N         112100 1302 EPA300.0  54404  GE 33976003        NO3       10.0   25.0          1650     MGL  0.00        W 500   IC1     54404  RWS  100  33976003.0  8  1.00  AB93796N
696-A-L  110600 0000 111000 112100 1302 N         112100 1302 EPA300.0  54404  GE 33976003        SO4       39.5   100           4700     MGL  0.00        W 500   IC1     54404  RWS  100  33976003.0  8  1.00  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        AGTOT     5.29   50.0   U      50.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        ALTOT     234    500    U      234      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        ASTOT     25.7   50.0          147      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        BATOT     7.48   50.0          392      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        BETOT     4.74   50.0   U      50.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        BTOT      47.4   500           10400    UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        CATOT     355    1000          554000   UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        CDTOT     6.31   50.0   U      50.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        COTOT     6.27   50.0   J  I   17.4     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        CRTOT     10.6   50.0          12300    UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        CUTOT     18.4   50.0   J  I   30.4     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        FETOT     199    500       V   707      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        MGTOT     35.4   200       V   1150000  UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        MNTOT     11.5   100    J  I   42.6     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        MOTOT     10.5   100           20700    UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        NITOT     30.9   50.0          198      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        PBTOT     18.3   50.0   U      50.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        SBTOT     34.3   100    U      100      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        SETOT     23.6   50.0          747      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        SNTOT     19.8   100    U      100      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        SRTOT     4.69   50.0          2950     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        TITOT     4.59   50.0   J  I   8.73     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        TLTOT     39.3   100    J  I   60.5     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        UTOT      119    500    U      500      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        VTOT      8.90   50.0          76.6     UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112500 2011 EPA6010B  53112  GE 33976004        ZNTOT     38.9   50.0          857      UGL  0.00        W 1.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112600 1331 EPA6010B  53112  GE 33976004        KTOT      820    5000          1210000  UGL  0.00        W 5.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1315 EPA3005A  112600 1331 EPA6010B  53112  GE 33976004        NATOT     650    5000      V   2580000  UGL  0.00        W 5.00  TRACE2  53556  JAB  100              8  10.0  AB93796N
696-B-L  110600 0000 111000 111300 1845 EPA7470A  111400 1005 EPA7470A  53122  GE 33976004        HGTOT     0.600  2.00   U      2.00     UGL  0.00        W 1.00  MER179  53353  AW2  100  33976004.0  8  10.0  AB93796N
696-B-L  110600 0000 111000 111500 1414 N         111500 1414 EPA300.0  53511  GE 33976004        OXALATE   0.113  0.800  U      0.600    MGL  0.00        W 1.00  IC1     53511  RWS  100  33976004.0  8  1.00  AB93796N
696-B-L  110600 0000 111000 112100 1107 N         112100 1107 EPA300.0  54404  GE 33976004        BR        0.160  0.500  U      0.500    MGL  0.00        W 10.0  IC1     54404  RWS  100  33976004.0  8  1.00  AB93796N
696-B-L  110600 0000 111000 112100 1107 N         112100 1107 EPA300.0  54404  GE 33976004        CL        0.260  1.00          14.0     MGL  0.00        W 10.0  IC1     54404  RWS  100  33976004.0  8  1.00  AB93796N
696-B-L  110600 0000 111000 112100 1107 N         112100 1107 EPA300.0  54404  GE 33976004        F         0.170  0.500         20.0     MGL  0.00        W 10.0  IC1     54404  RWS  100  33976004.0  8  1.00  AB93796N
696-B-L  110600 0000 111000 112100 1107 N         112100 1107 EPA300.0  54404  GE 33976004        NO2       0.200  0.500  U      0.500    MGL  0.00        W 10.0  IC1     54404  RWS  100  33976004.0  8  1.00  AB93796N
696-B-L  110600 0000 111000 112100 1107 N         112100 1107 EPA300.0  54404  GE 33976004        OPO4      0.400  1.00          10.3     MGL  0.00        W 10.0  IC1     54404  RWS  100  33976004.0  8  1.00  AB93796N
696-B-L  110600 0000 111000 112100 1316 N         112100 1316 EPA300.0  54404  GE 33976004        NO3       10.0   25.0          1560     MGL  0.00        W 500   IC1     54404  RWS  100  33976004.0  8  1.00  AB93796N
696-B-L  110600 0000 111000 112100 1316 N         112100 1316 EPA300.0  54404  GE 33976004        SO4       39.5   100           4370     MGL  0.00        W 500   IC1     54404  RWS  100  33976004.0  8  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   AGTOT     0.529  5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   ALTOT     23.4   50.0   U      50.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   ASTOT     2.57   5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   BATOT     0.748  5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   BETOT     0.474  5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   BTOT      4.74   50.0   U      50.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   CATOT     35.5   100    U      100      UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   CDTOT     0.631  5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   COTOT     0.627  5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   CRTOT     1.06   5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   CUTOT     1.84   5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   FETOT     19.9   50.0   J  IV  25.8     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   KTOT      16.4   100    U      100      UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   MGTOT     3.54   20.0   J  IV  5.62     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   MNTOT     1.15   10.0   U      10.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   MOTOT     1.05   10.0   U      10.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   NATOT     13.0   100    J  IV  43.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   NITOT     3.09   5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   PBTOT     1.83   5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   SBTOT     3.43   10.0   U      10.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   SETOT     2.38   5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   SNTOT     1.98   10.0   U      10.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   SRTOT     0.469  5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   TITOT     0.459  5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   TLTOT     3.93   10.0   U      10.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   UTOT      11.9   50.0   U      50.0     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   VTOT      0.890  5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
LB       111300 1315 111300 111300 1315 EPA3005A  112500 1815 EPA6010B  53112  GE 1000128711  3   ZNTOT     3.89   5.00   U      5.00     UGL  0.00        W 1.00  TRACE2  53556  JAB  0                4  1.00  AB93796N
00579-1  110700 1000 110900 111300 1315 EPA3005A  112500 1838 EPA6010B  53112  GE 1000128712  2A  AGTOT     5.29   50.0          5270     UGL  5000   105  W 1.00  TRACE2  53556  JAB  0                4  10.0  AB93796N
00579-1  110700 1000 110900 111300 1315 EPA3005A  112500 1838 EPA6010B  53112  GE 1000128712  2A  ALTOT     234    500           54200    UGL  50000  108  W 1.00  TRACE2  53556  JAB  0                4  10.0  AB93796N
00579-1  110700 1000 110900 111300 1315 EPA3005A  112500 1838 EPA6010B  53112  GE 1000128712  2A  ASTOT     25.7   50.0          5210     UGL  5000   104  W 1.00  TRACE2  53556  JAB  0                4  10.0  AB93796N
00579-1  110700 1000 110900 111300 1315 EPA3005A  112500 1838 EPA6010B  53112  GE 1000128712  2A  BATOT     7.48   50.0          5390     UGL  5000   108  W 1.00  TRACE2  53556  JAB  0                4  10.0  AB93796N
00579-1  110700 1000 110900 111300 1315 EPA3005A  112500 1838 EPA6010B  53112  GE 1000128712  2A  BETOT     4.74   50.0          4950     UGL  5000   99   W 1.00  TRACE2  53556  JAB  0                4  10.0  AB93796N
00579-1  110700 1000 110900 111300 1315 EPA3005A  112500 1838 EPA6010B  53112  GE 1000128712  2A  BTOT      47.4   500           15200    UGL  5000   104  W 1.00  TRACE2  53556  JAB  0                4  10.0  AB93796N
00579-1  110700 1000 110900 111300 1315 EPA3005A  112500 1838 EPA6010B  53112  GE 1000128712  2A  CATOT     355    1000          52600    UGL  50000  100  W 1.00  TRACE2  53556  JAB  0                4  10.0  AB93796N
00579-1  110700 1000 110900 111300 1315 EPA3005A  112500 1838 EPA6010B  53112  GE 1000128712  2A  CDTOT     6.31   50.0          6710     UGL  5000   100  W 1.00  TRACE2  53556  JAB  0                4  10.0  AB93796N
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00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  COTOT    6.27   50.0        5160      UGL  5000   103    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  CRTOT    10.6   50.0        8380      UGL  5000   101    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  CUTOT    18.4   50.0        5940      UGL  5000   109    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  FETOT    199    500    V    52200     UGL  50000  103    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  KTOT     164    1000        124000    UGL  50000  131    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  MGTOT    35.4   200    V    51400     UGL  50000  101    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  MNTOT    11.5   100         10700     UGL  5000   100    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  MOTOT    10.5   100         5760      UGL  5000   107    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  NATOT    130    1000   V    12200000  UGL  50000  -319   W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  NITOT    30.9   50.0        9690      UGL  5000   101    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  PBTOT    18.3   50.0        5730      UGL  5000   101    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  SBTOT    34.3   100         5450      UGL  5000   108    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  SETOT    23.6   50.0        4990      UGL  5000   100    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  SNTOT    19.8   100         5410      UGL  5000   108    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  SRTOT    4.69   50.0        17300     UGL  5000   112    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  TITOT    4.59   50.0        5130      UGL  5000   103    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  TLTOT    39.3   100         5100      UGL  5000   101    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  UTOT     119    500         5280      UGL  5000   106    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  VTOT     8.90   50.0        5220      UGL  5000   104    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1838 EPA6010B   53112  GE 1000128712  2A  ZNTOT    38.9   50.0        7860      UGL  5000   102    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  AGTOT    5.29   50.0        5410      UGL  5000   108    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  ALTOT    234    500         55500     UGL  50000  111    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  ASTOT    25.7   50.0        5350      UGL  5000   107    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  BATOT    7.48   50.0        5530      UGL  5000   110    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  BETOT    4.74   50.0        5090      UGL  5000   102    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  BTOT     47.4   500         15500     UGL  5000   110    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  CATOT    355    1000        54400     UGL  50000  103    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  CDTOT    6.31   50.0        6850      UGL  5000   103    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  COTOT    6.27   50.0        5290      UGL  5000   105    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  CRTOT    10.6   50.0        8580      UGL  5000   105    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  CUTOT    16.4   50.0        6110      UGL  5000   113    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  FETOT    199    500    V    53700     UGL  50000  106    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  KTOT     184    1000        126000    UGL  50000  135    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  MGTOT    35.4   200    V    52900     UGL  50000  104    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  MNTOT    11.5   100         10900     UGL  5000   104    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  MOTOT    10.5   100         5950      UGL  5000   111    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  NATOT    130    1000   V    12300000  UGL  50000  -114   W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  NITOT    30.9   50.0        9880      UGL  5000   105    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  PBTOT    18.3   50.0        5880      UGL  5000   104    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  SBTOT    34.3   100         5590      UGL  5000   111    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  SETOT    23.6   50.0        5160      UGL  5000   103    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  SNTOT    19.8   100         5550      UGL  5000   111    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  SRTOT    4.69   50.0        17300     UGL  5000   113    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  TITOT    4.59   50.0        5300      UGL  5000   106    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  TLTOT    39.3   100         5280      UGL  5000   105    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  UTOT     119    500         5420      UGL  5000   108    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  VTOT     8.90   50.0        5370      UGL  5000   107    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
00579-1      110700 1000 110900 111300 1315 EPA3005A   112500 1844 EPA6010B   53112  GE 1000128713  2B  ZNTOT    38.9   50.0        8050      UGL  5000   106    W 1.00 TRACE2  53556  JAB  0    4 10.0 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  AGTOT    0.529  5.00        505       UGL  500    101    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  ALTOT    23.4   50.0        5390      UGL  5000   108    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  ASTOT    2.57   5.00        508       UGL  500    102    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  BATOT    0.748  5.00        545       UGL  500    109    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  BETOT    0.474  5.00        499       UGL  500    100    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  BTOT     4.74   50.0        507       UGL  500    101    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  CATOT    35.5   100         5050      UGL  5000   101    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  CDTOT    0.631  5.00        495       UGL  500    99     W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  COTOT    0.627  5.00        509       UGL  500    102    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  CRTOT    1.06   5.00        515       UGL  500    103    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  CUTOT    1.64   5.00        533       UGL  500    107    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  FETOT    19.9   50.0   V    5170      UGL  5000   103    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  KTOT     16.4   100         5200      UGL  5000   104    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  MGTOT    3.54   20.0   V    5170      UGL  5000   103    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  MNTOT    1.15   10.0        507       UGL  500    101    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  MOTOT    1.05   10.0        529       UGL  500    106    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  NATOT    13.0   100    V    5490      UGL  5000   110    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  NITOT    3.09   5.00        507       UGL  500    101    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  PBTOT    1.83   5.00        506       UGL  500    101    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  SBTOT    3.43   10.0        529       UGL  500    106    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  SETOT    2.36   5.00        499       UGL  500    100    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  SNTOT    1.98   10.0        521       UGL  500    104    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  SRTOT    0.469  5.00        530       UGL  500    106    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  TITOT    0.459  5.00        519       UGL  500    104    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  TLTOT    3.93   10.0        509       UGL  500    102    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  UTOT     11.9   50.0        538       UGL  500    108    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  VTOT     0.890  5.00        521       UGL  500    104    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1315 111300 111300 1315 EPA3005A   112500 1821 EPA6010B   53112  GE 1000128714  2D  ZNTOT    3.89   5.00        508       UGL  500    101    W 1.00 TRACE2  53556  JAB  0    4 1.00 AB93796N
 LB          111300 1845 111300 111300 1845 EPA7470A   111400 0938 EPA7470A   53122  GE 1000128789  3   HGTOT    0.600  2.00   U    2.00      UGL  0.00          W 1.00 MER179  53353  AW2  0    4 10.0 AB93796N
 LB          111300 1845 111300 111300 1845 EPA7470A   111400 0940 EPA7470A   53122  GE 1000128791  2D  HGTOT    0.600  2.00        20.4      UGL  20.0   102    W 1.00 MER179  53353  AW2  0    4 10.0 AB93796N
00-CIF-1368  110900 1156 110900 111300 1845 EPA7470A   111400 0944 EPA7470A   53122  GE 1000128793  2A  HGTOT    0.600  2.00        23.5      UGL  20.0   117    W 1.00 MER179  53353  AW2  0    4 10.0 AB23463N
00-CIF-1368  110900 1156 110900 111300 1845 EPA7470A   111400 0946 EPA7470A   53122  GE 1000128794  2B  HGTOT    0.600  2.00        20.4      UGL  20.0   102    W 1.00 MER179  53353  AW2  0    4 10.0 AB23463N
 LB          111500 1515 111500 111500 1515 N          111500 1515 EPA300.0   53511  GE 1000129868  3   OXALATE  0.113  0.600       0.600     MGL  0.00          W 1.00 IC1     53511  RWS  0    4 1.00 AB93796N
 LB          111500 1454 111500 111500 1454 N          111500 1454 EPA300.0   53511  GE 1000129869  2D  OXALATE  0.113  0.600       8.46      MGL  9.00   94     W 1.00 IC1     53511  RWS  0    4 1.00 AB93796N
689-A-L      110600 0000 111000 111500 1252 N          111500 1252 EPA300.0   53511  GE 1000129874  1   OXALATE  0.113  0.600  U    0.600     MGL  0.00          W 1.00 IC1     53511  RWS  0    4 1.00 AB93796N
 LB          112100 1233 112100 112100 1233 N          112100 1233 EPA300.0   54404  GE 1000132627  3   BR       0.016  0.050  U    0.050     MGL  0.00          W 1.00 IC1     54404  RWS  0    4 1.00 AB93796N
 LB          112100 1233 112100 112100 1233 N          112100 1233 EPA300.0   54404  GE 1000132627  3   CL       0.026  0.100  U    0.100     MGL  0.00          W 1.00 IC1     54404  RWS  0    4 1.00 AB93796N
 LB          112100 1233 112100 112100 1233 N          112100 1233 EPA300.0   54404  GE 1000132627  3   F        0.017  0.050  U    0.050     MGL  0.00          W 1.00 IC1     54404  RWS  0    4 1.00 AB93796N
 LB          112100 1233 112100 112100 1233 N          112100 1233 EPA300.0   54404  GE 1000132627  3   NO2      0.020  0.050  U    0.050     MGL  0.00          W 1.00 IC1     54404  RWS  0    4 1.00 AB93796N
 LB          112100 1233 112100 112100 1233 N          112100 1233 EPA300.0   54404  GE 1000132627  3   NO3      0.020  0.050  U    0.050     MGL  0.00          W 1.00 IC1     54404  RWS  0    4 1.00 AB93796N
 LB          112100 1233 112100 112100 1233 N          112100 1233 EPA300.0   54404  GE 1000132627  3   OPO4     0.040  0.100  U    0.100     MGL  0.00          W 1.00 IC1     54404  RWS  0    4 1.00 AB93796N
 LB          112100 1233 112100 112100 1233 N          112100 1233 EPA300.0   54404  GE 1000132627  3   SO4      0.079  0.200  U    0.200     MGL  0.00          W 1.00 IC1     54404  RWS  0    4 1.00 AB93796N
 LB          112100 1218 112100 112100 1218 N          112100 1218 EPA300.0   54404  GE 1000132628  2D  BR       0.016  0.050       9.96      MGL  10.0   100    W 1.00 IC1     54404  RWS  0    4 1.00 AB93796N
 LB          112100 1218 112100 112100 1218 N          112100 1218 EPA300.0   54404  GE 1000132628  2D  CL       0.026  0.100       9.57      MGL  10.0   96     W 1.00 IC1     54404  RWS  0    4 1.00 AB93796N
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LB          112100 1218 112100 112100 1218 N   112100 1218 EPA300.0  54404  GE 1000132628  2D  F      0.017  0.050       10.4   MGL  10.0  104   W 1.00  IC1  54404  RWS 0   4 1.00  AB93796N
LB          112100 1218 112100 112100 1218 N   112100 1218 EPA300.0  54404  GE 1000132628  2D  NO2    0.020  0.050       10.3   MGL  10.0  103   W 1.00  IC1  54404  RWS 0   4 1.00  AB93796N
LB          112100 1218 112100 112100 1218 N   112100 1218 EPA300.0  54404  GE 1000132628  2D  NO3    0.020  0.050       5.09   MGL  5.00  102   W 1.00  IC1  54404  RWS 0   4 1.00  AB93796N
LB          112100 1218 112100 112100 1218 N   112100 1218 EPA300.0  54404  GE 1000132628  2D  OPO4   0.040  0.100       10.1   MGL  10.0  101   W 1.00  IC1  54404  RWS 0   4 1.00  AB93796N
LB          112100 1218 112100 112100 1218 N   112100 1218 EPA300.0  54404  GE 1000132628  2D  SO4    0.079  0.200       19.6   MGL  20.0  98    W 1.00  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1009 N   112100 1009 EPA300.0  54404  GE 1000132629  1   BR     0.160  0.500  U    0.500  MGL  0.00        W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1009 N   112100 1009 EPA300.0  54404  GE 1000132629  1   CL     0.260  1.00        14.6   MGL  0.00        W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1009 N   112100 1009 EPA300.0  54404  GE 1000132629  1   F      0.170  0.500       20.5   MGL  0.00        W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1009 N   112100 1009 EPA300.0  54404  GE 1000132629  1   NO2    0.200  0.500  U    0.500  MGL  0.00        W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1009 N   112100 1009 EPA300.0  54404  GE 1000132629  1   OPO4   0.400  1.00        3.37   MGL  0.00        W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1150 N   112100 1150 EPA300.0  54404  GE 1000132629  1   NO3    10.0   25.0        1690   MGL  0.00        W 500   IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1150 N   112100 1150 EPA300.0  54404  GE 1000132629  1   SO4    39.5   100         5070   MGL  0.00        W 500   IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1023 N   112100 1023 EPA300.0  54404  GE 1000132630  2A  BR     0.160  0.500       123    MGL  10.0  123   W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1023 N   112100 1023 EPA300.0  54404  GE 1000132630  2A  CL     0.260  1.00        121    MGL  10.0  107   W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1023 N   112100 1023 EPA300.0  54404  GE 1000132630  2A  F      0.170  0.500       149    MGL  10.0  129   W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1023 N   112100 1023 EPA300.0  54404  GE 1000132630  2A  NO2    0.200  0.500       109    MGL  10.0  108   W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1023 N   112100 1023 EPA300.0  54404  GE 1000132630  2A  OPO4   0.400  1.00        349    MGL  10.0  346   W 10.0  IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1204 N   112100 1204 EPA300.0  54404  GE 1000132630  2A  NO3    10.0   25.0        4550   MGL  5.00  111   W 500   IC1  54404  RWS 0   4 1.00  AB93796N
689-A-L     110600 0000 111000 112100 1204 N   112100 1204 EPA300.0  54404  GE 1000132630  2A  SO4    39.5   100         16000  MGL  20.0  107   W 500   IC1  54404  RWS 0   4 1.00  AB93796N
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339761. 339771.

CHAIN-OF-CUSTODY

Page 1 of 2

Job Number: 00542

Contract Number: AB93796N

Customer Name: May, Cecil

Customer Department: WPT

Customer Address: 773-42A

Customer Phone/Beeper: 5-5813   12583.001

BN

Ship to:

Company: General Engineering Laboratory

Address: 2040 Savage Road
Charleston, South Carolina 29407

.002

Attention: Lee Heath Project Manager

Westinghouse Savannah River Company
Aiken, SC 29808

COC creation date: 10/12/00

Environmental Monitoring Section
Environmental Geochemistry Group

Matrix Key: S=Soil, SO=Solid, SL=Sludge, O=Organic, A=Aqueous

Sample ID:	689A-L	689-B-L	696AL	696BL	689AS	689BS
Collect Date	11/6/00	11/6/00	11/6/00	11/6/00	11/6/00	11/6/00
Collect Time	—	—	—	—	—	—
No. Containers	1	1	1	1	1	1
Matrix	A	A	A	A	SO	SO
Sample Analysis Requested						
Mercury in Solid Waste (manual Cold-vapor tech.) (61)						
TCLP, Metals (Prep & Analysis) (20)						
Gamma PHA Scan (118), Ac-227						
* Ion Chromatography Scan (194)	X	X	X	X		
Radium-226 (162)						
Radium-228 (164)						
* Inductively Coupled Plasma Mass Spec. Scan (40)	X	X	X	X	X	X

30 Day TAT PLEASE KEEP SAMPLE RESIDUE AND WASTE SEPARATED FROM ALL WSRC SAMPLES

STR Authorization: J D C Crawford

1 Relinquished by:	Date/Time	Received by:	2 Relinquished by:	Date/Time	Received by:
(Print) Steve Hoeffner	Date 11/9/00	(Print) P. WILBE	(Print)	Date	(Print)
(Sign) Steve Hoeffner	Time 1:00 pm	(Sign) 11-10-00 1:00	(Sign)	Time	(Sign)

3 Relinquished by:	Date/Time	Received by:	4 Relinquished by:	Date/Time	Received by:
(Print)		(Print)	(Print)		(Print)
(Sign)	Time	(Sign)	(Sign)	Time	(Sign)

CHAIN-OF-CUSTODY

Page 2 of 2

Job Number 00542 ☐	Customer Name: May, Cecil	BN	
Contract Number AB93796N	Customer Department: WPT		
	Customer Address: 773-42A		
	Customer Phone/Beeper: 5-5813 12583		

Ship to:
Company: General Engineering Laboratory
Address: 2040 Savage Road
Charleston, South Carolina 29407
Attention: Lee Heath Project Manager

Westinghouse Savannah River
Company
Aiken, SC 29808

COC creation date. 10/12/00

Environmental Monitoring Section
Environmental Geochemistry Group

Matrix Key: S=Soil, SO=Solid, SL=Sludge, O=Organic, A=Aqueous

	Sample ID: 696AS	Sample ID: 696BS	Sample ID:	Sample ID:	Sample ID:	Sample ID:
	Collect Date 11/6/00	Collect Date 11/6/00	Collect Date	Collect Date	Collect Date	Collect Date
	Collect Time –	Collect Time –	Collect Time	Collect Time	Collect Time	Collect Time
	No. Containers 1	No. Containers 1	No. Containers	No. Containers	No. Containers	No. Containers
Sample Analysis Requested	Matrix SO	Matrix SO	Matrix	Matrix	Matrix	Matrix
Mercury in Solid Waste (manual Cold-vapor tech.) (61)						
TCLP, Metals (Prep & Analysis) (20)						
Gamma PHA Scan (118), Ac-227						
Ion Chromatography Scan (194)						
Radium-226 (162)						
Radium-228 (164)						
Inductively Coupled Plasma Mass Spec. Scan (40)	X	X				

30 Day TAT PLEASE KEEP SAMPLE RESIDUE AND WASTE SEPARATED FROM ALL WSRC SAMPLES

STR Authorization J D C Crawford

1 Relinquished by:	Date/Time	Received by:	2 Relinquished by:	Date/Time	Received by:
(Print) Steve Hoeffner	Date 11/9/00	(Print) J. WILBER	(Print)	Date	(Print)
(Sign) Steve Hoeffner	Time 1:00 pm	(Sign) 11-10-00 1000	(Sign)	Time	(Sign)
3 Relinquished by:	**Date/Time**	**Received by:**	**4 Relinquished by:**	**Date/Time**	**Received by:**
(Print)		(Print)	(Print)		(Print)
(Sign)	Time	(Sign)	(Sign)	Time	(Sign)

GENERAL ENGINEERING LABORATORIES
RADIOACTIVE MATERIAL INVENTORY SHEET

PLEASE ATTACH APPLICABLE RADIOLOGICAL DOCUMENTATION

SAMPLE DATA ATTACHED (CIRCLE ONE) [✓ YES] NO

RECEIVED BY:

DATE RECEIVED: 11-10-00

TOTAL NUMBER OF CONTAINERS: 8

VOLUME: 4x250 = 1000 ml
4x50 = 200 g
APPROXIMATE (ml / g)

DOE/ATOMIC ENERGY ACT SAMPLE? YES NO

TOTAL ACTIVITY:

TRITIUM:

OTHER:

LIST OF NON-TRITIUM ISOTOPES IN SHIPMENT:

GEL RECEIVING DATA

CLIENT:	WSRC
CLIENT ID NUMBERS:	
LIMS ID NUMBER:	
MAXIMUM RAD LEVELS ON CONTACT (mR/hr)	<0.5 mr/h
ALPHA SURFACE CONTAMINATION	<10 DPM (CIRCLE ONE) FRISK/[✓ SWIPE]
BETA GAMMA SURFACE CONTAMINATION	<20 DPM (CIRCLE ONE) FRISK/[✓ SWIPE]

RAD LICENSE SERIAL NUMBER:

REVIEWED AND APPROVED: DATE:

SAMPLE RECEIPT REVIEW

Date ~~WSRC~~ 11-10-00

Client WSRC

Received by

	SAMPLE REVIEW CRITERIA	YES	NO	N/A	COMMENTS/QUALIFIERS
1	Were shipping containers received intact and sealed? If no, notify the Project Manager	✓			
2	Were chain of custody documents included?	✓			
3	Shipping container temperature(s) checked:	✓			19.0°
4	Is temperature documented on Chain of Custody		✓		
5	Was shipping container temperature within specifications (4 +/- 2 C) If no, notify Project Manager			✓	
6	Are any of the samples identified by the client as radioactive?	✓			
	Were the samples screened for radioactivity?	✓			
	Were the screening results <= background? If results are > background inform RSO		✓		
7	Were chain of custody documents completed correctly? (Ink, signed, match containers)	✓			
8	Were sample containers received intact and sealed? If no, notify the Project Manager	✓			
9	Were all sample containers properly labeled?	✓			
10	Were correct sample containers received?	✓			
11	Preserved samples checked for pH?	✓			
12	Were samples preserved correctly? If no, notify Project Manager	✓			
13	Were samples received within holding time? If No, notify Project Manager	✓			
14	Were VOA vials free of headspace?			✓	
15	ARCOC#				
16	SDG#				33976133977

PM(A) Review:

Date Reviewed: 11/14/00

Additional Comments:

Work Order Containers

Submit

Work Order / Sample No.: 33976

33976001.01 - 1000 ml/P - None

10-NOV-2000 15:54:18	Dionne Francis		Login Area
10-NOV-2000 16:10:01	Patricia Dover		5) Radioactive Cooler
13-NOV-2000 08:53:03	Mellie Smith		Inorganic Prep
13-NOV-2000 17:03:08	Kristana Davis	53112	Inorganic Prep
13-NOV-2000 17:25:50	Aaron Dias	53122	Sample Return Shelf Ambient Storage
13-NOV-2000 20:03:45	Kristana Davis		Sample Return Shelf Login Area
14-NOV-2000 09:08:06	Mellie Smith		5) Radioactive Cooler
15-NOV-2000 10:52:57	Buddy Sosa	53511	IC Lab
15-NOV-2000 18:30:52	Mellie Smith		5) Radioactive Cooler
21-NOV-2000 08:40:35	Michael Kinslow		IC Lab
21-NOV-2000 08:44:53	Buddy Sosa	54404	IC Lab
21-NOV-2000 11:03:29	Michael Kinslow		Radiological Soil Preparation
21-NOV-2000 11:21:24	Calvin Stone		Sample Return Shelf Radiochem
21-NOV-2000 18:37:44	Elijah Singleton		5) Radioactive Cooler

33976001.01.01 - 50 ml/P

13-NOV-2000 17:03:14	Kristana Davis	53112	Inorganic Prep

33976001.01.03 - 50 ml/P

13-NOV-2000 17:25:58	Aaron Dias	53122	Sample Return Shelf Ambient Storage
14-NOV-2000 08:50:40	Anson Walsh	53353	Mercury Lab

33976002.01 - 1000 ml/P - None

10-NOV-2000 15:54:18	Dionne Francis		Login Area
10-NOV-2000 16:10:01	Patricia Dover		5) Radioactive Cooler
13-NOV-2000 08:53:03	Mellie Smith		Inorganic Prep
13-NOV-2000 17:03:08	Kristana Davis	53112	Inorganic Prep
13-NOV-2000 17:25:50	Aaron Dias	53122	Sample Return Shelf Ambient Storage
13-NOV-2000 20:03:45	Kristana Davis		Sample Return Shelf Login Area
14-NOV-2000 09:08:06	Mellie Smith		5) Radioactive Cooler
15-NOV-2000 10:52:57	Buddy Sosa	53511	IC Lab
15-NOV-2000 18:30:52	Mellie Smith		5) Radioactive Cooler
21-NOV-2000 08:40:35	Michael Kinslow		IC Lab
21-NOV-2000 08:44:53	Buddy Sosa	54404	IC Lab
21-NOV-2000 11:03:29	Michael Kinslow		Radiological Soil Preparation
21-NOV-2000 11:21:24	Calvin Stone		Sample Return Shelf Radiochem
21-NOV-2000 18:37:43	Elijah Singleton		5) Radioactive Cooler

33976002.01.01 - 50 ml/P

13-NOV-2000 17:03:14	Kristana Davis	53112	Inorganic Prep

33976002.01.03 - 50 ml/P

13-NOV-2000 17:25:58	Aaron Dias	53122	Sample Return Shelf Ambient Storage
14-NOV-2000 08:50:40	Anson Walsh	53353	Mercury Lab

33976003.01 - 1000 ml/P - None

10-NOV-2000 15:54:18	Dionne Francis		Login Area
10-NOV-2000 16:10:01	Patricia Dover		5) Radioactive Cooler
13-NOV-2000 08:53:03	Mellie Smith		Inorganic Prep
13-NOV-2000 17:03:08	Kristana Davis	53112	Inorganic Prep
13-NOV-2000 17:25:50	Aaron Dias	53122	Sample Return Shelf Ambient Storage
13-NOV-2000 20:03:44	Kristana Davis		Sample Return Shelf Login Area
14-NOV-2000 09:08:06	Mellie Smith		5) Radioactive Cooler
15-NOV-2000 10:52:57	Buddy Sosa	53511	IC Lab
15-NOV-2000 18:30:52	Mellie Smith		5) Radioactive Cooler
21-NOV-2000 08:40:35	Michael Kinslow		IC Lab
21-NOV-2000 08:44:53	Buddy Sosa	54404	IC Lab
21-NOV-2000 11:03:29	Michael Kinslow		Radiological Soil Preparation
21-NOV-2000 11:21:24	Calvin Stone		Sample Return Shelf Radiochem
21-NOV-2000 18:37:43	Elijah Singleton		5) Radioactive Cooler

33976003.01.01 - 50 ml/P

13-NOV-2000 17:03:14	Kristana Davis	53112	Inorganic Prep

33976003.01.03 - 50 ml/P

13-NOV-2000 17:25:58	Aaron Dias	53122	Sample Return Shelf Ambient Storage
14-NOV-2000 08:50:40	Anson Walsh	53353	Mercury Lab

33976004.01 - 1000 ml/P - None

10-NOV-2000 15:54:18	Dionne Francis		Login Area
10-NOV-2000 16:10:01	Patricia Dover		5) Radioactive Cooler
13-NOV-2000 08:53:03	Mellie Smith		Inorganic Prep
13-NOV-2000 17:03:08	Kristana Davis	53112	Inorganic Prep
13-NOV-2000 17:25:50	Aaron Dias	53122	Sample Return Shelf Ambient Storage
13-NOV-2000 20:03:45	Kristana Davis		Sample Return Shelf Login Area
14-NOV-2000 09:08:06	Mellie Smith		5) Radioactive Cooler
15-NOV-2000 10:52:57	Buddy Sosa	53511	IC Lab
15-NOV-2000 18:30:52	Mellie Smith		5) Radioactive Cooler
21-NOV-2000 08:40:35	Michael Kinslow		IC Lab
21-NOV-2000 08:44:53	Buddy Sosa	54404	IC Lab
21-NOV-2000 11:03:29	Michael Kinslow		Radiological Soil Preparation
21-NOV-2000 11:21:24	Calvin Stone		Sample Return Shelf Radiochem
21-NOV-2000 18:37:43	Elijah Singleton		5) Radioactive Cooler

33976004.01.01 - 50 ml/P

13-NOV-2000 17:03:14	Kristana Davis	53112	Inorganic Prep

33976004.01.03 - 50 ml/P

13-NOV-2000 17:25:58	Aaron Dias	53122	Sample Return Shelf Ambient Storage
14-NOV-2000 08:50:40	Anson Walsh	53353	Mercury Lab

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Work Order Containers

Submit

Work Order / Sample No.: 33977

33977001.01 - 125 ml/P - None

10-NOV-2000 15:54:39	Dionne Francis		Login Area
10-NOV-2000 16:11:38	Patricia Dover		5) Radioactive Cooler
13-NOV-2000 17:27:09	Aaron Dias	53124	Sample Return Shelf Login Area
14-NOV-2000 09:08:06	Mellie Smith		5) Radioactive Cooler
14-NOV-2000 14:09:41	Kristana Davis	53116	Inorganic Prep
15-NOV-2000 09:19:19	Chris Martin		5) Radioactive Cooler

33977001.01.01 - 50 ml/P

13-NOV-2000 17:27:16	Aaron Dias	53124	Sample Return Shelf Login Area
15-NOV-2000 09:55:36	Anson Walsh	53359	Mercury Lab

33977001.01.03 - 50 ml/P

14-NOV-2000 14:09:47	Kristana Davis	53116	Inorganic Prep

33977002.01 - 125 ml/P - None

10-NOV-2000 15:54:39	Dionne Francis		Login Area
10-NOV-2000 16:11:38	Patricia Dover		5) Radioactive Cooler
13-NOV-2000 17:27:09	Aaron Dias	53124	Sample Return Shelf Login Area
14-NOV-2000 09:08:06	Mellie Smith		5) Radioactive Cooler
14-NOV-2000 14:09:41	Kristana Davis	53116	Inorganic Prep
15-NOV-2000 09:19:19	Chris Martin		5) Radioactive Cooler

33977002.01.01 - 50 ml/P

13-NOV-2000 17:27:16	Aaron Dias	53124	Sample Return Shelf Login Area
15-NOV-2000 09:55:36	Anson Walsh	53359	Mercury Lab

33977002.01.03 - 50 ml/P

14-NOV-2000 14:09:47	Kristana Davis	53116	Inorganic Prep

33977003.01 - 125 ml/P - None

10-NOV-2000 15:54:39	Dionne Francis		Login Area
10-NOV-2000 16:11:38	Patricia Dover		5) Radioactive Cooler
13-NOV-2000 17:27:09	Aaron Dias	53124	Sample Return Shelf Login Area
14-NOV-2000 09:08:06	Mellie Smith		5) Radioactive Cooler
14-NOV-2000 14:09:41	Kristana Davis	53116	Inorganic Prep
14-NOV-2000 21:42:05	Kristana Davis		Sample Return Shelf Login Area
15-NOV-2000 09:19:19	Chris Martin		5) Radioactive Cooler

33977003.01.01 - 50 ml/P

13-NOV-2000 17:27:16	Aaron Dias	53124	Sample Return Shelf Login Area
15-NOV-2000 09:55:36	Anson Walsh	53359	Mercury Lab

33977003.01.03 - 50 ml/P

14-NOV-2000 14:09:47	Kristana Davis	53116	Inorganic Prep

33977004.01 - 125 ml/P - None

10-NOV-2000 15:54:39	Dionne Francis		Login Area
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33977004.01.01 - 50 ml/P

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33977004.01.03 - 50 ml/P

14-NOV-2000 14:09:47	Kristana Davis	53116	Inorganic Prep

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